Chapter 13
Land Use

13.1 Environmental Setting/Affected Environment

This section describes existing land uses and planned future land uses that could be affected by construction and operation of the alternatives in the study area (the area in which impacts may occur), which consists of the Plan Area (the area covered by the BDCP); which is largely formed by the statutory borders of the Delta, along with areas in Suisun Marsh and the Yolo Bypass; and the Areas of Additional Analysis (see Chapter 3, *Description of Alternatives*, Section 3.3.1). This discussion summarizes goals, objectives, and policies from the general plans and other regulations and plans of agencies with jurisdiction over land uses in the Delta, Suisun Marsh, and Yolo Bypass upstream of the statutory Delta. Certain topics discussed in this section are related to topics discussed in substantially greater detail in other sections of this Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Chapter 14, *Agricultural Resources*, examines the effect of the BDCP on Important Farmland, as well as land subject to Williamson Act contracts or in Farmland Security Zones in the Delta, Suisun Marsh, and Yolo Bypass upstream of the statutory Delta. Chapter 16, *Socioeconomics*, discusses the economics of agricultural production in the Delta. Detailed information on public and private recreation facilities is described in Chapter 15, *Recreation*.

This section does not describe the land use setting or potential project effects in the SWP and CVP Export Service Areas (Export Service Areas). This topic is addressed in Chapter 30, *Growth Inducement and Other Indirect Effects*.

13.1.1 Potential Environmental Effects Area

The study area evaluated for potential effects on land use is the Plan Area and the Areas of Additional Analysis and includes the portions of the counties containing the statutory Delta, Suisun Marsh, and Yolo Bypass: Yolo, Solano, Sutter, Contra Costa, San Joaquin, Sacramento, and Alameda Counties (Figure 1-9). Although the study area is comprised primarily of the statutory Delta, Yolo Bypass, and Suisun Marsh, relevant local land use issues are analyzed only where they would be affected by implementation of a Bay Delta Conservation Plan (BDCP) alternative.

13.1.1.1 Existing Land Uses in the Study Area

This section identifies and characterizes the existing land uses in the study area based on recent aerial imagery and county and city general plans. General plan land use designations for seven counties and 17 cities are discussed in Sections 13.2.3.4 and 13.2.3.5 below. A number of unincorporated towns and census-designated places (CDPs) also lie within the study area; however, county land use designations, goals, and policies generally guide land use in these communities.

Statutory Delta

The statutory Delta totals 738,000 acres including approximately 538,000 acres of agricultural land uses, 60,000 acres of open water, and 64,000 acres of urban land uses. The remainder of the region presently consists of open space and wildlife habitat.

As part of the Johnston-Baker-Andal-Boatwright Delta Protection Act of 1992 (Delta Protection Act), the Delta Protection Commission (DPC) designated primary and secondary land management zones within the Delta. The Primary Zone of the Delta encompasses approximately 780 square miles, or 500,000 acres, primarily used for farming. This zone extends over the City of Rio Vista and portions of Alameda, Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties. Unincorporated towns lying along the Sacramento River in the Primary Zone include Clarksburg, Courtland, Hood, Locke, Walnut Grove, and Ryde (Delta Protection Commission 2010). The Secondary Zone of the Delta consists of approximately 238,000 acres and is defined as all the land and water area within the boundaries of the statutory Delta that is not included within the Primary Zone (Delta Protection Commission 2007). The city of Isleton and portions of the cities of Stockton, Rio Vista, Antioch, Oakley, Sacramento, West Sacramento, Elk Grove, Tracy, Lathrop, and Pittsburg are located in or just outside of the Secondary Zone; see Figure 13-1 for a map of the Plan Area, Areas of Additional Analysis, the Primary and Secondary Delta Zones, and the cities and counties that lie within the Delta.

Alameda County

A portion of the study area overlies approximately 4,650 acres of the extreme northeastern corner of Alameda County. This portion of the county is primarily characterized by agricultural land uses, open space, and the Clifton Court Forebay, which extends into Contra Costa County.

Contra Costa County

The study area covers approximately 112,640 acres of eastern Contra Costa County including portions of the cities of Antioch, Brentwood, Oakley, and Pittsburg. The city of Oakley is located in eastern Contra Costa County, and its approximately 10,355 acres fall almost entirely within the study area. Additionally, CDPs and unincorporated towns lying partially or completely within Contra Costa County and within the study area include Bay Point, Bethel Island, Byron, Discovery Bay, and Knightsen. Land uses in this part of the county are primarily agricultural, rural, suburban residential, commercial light industrial, and open space. Clifton Court Forebay extends from Alameda County into Contra Costa County. The Frank's Tract State Recreation Area falls within this part of Contra Costa County.

Sacramento County

Approximately 122,370 acres in the southwestern portion of Sacramento County also lie within the study area. The cities of Sacramento, Elk Grove, and Isleton lie partially or completely within Sacramento County and the study area, along with the unincorporated communities of Courtland, Freeport, Hood, Ryde, Locke, and Walnut Grove. Land uses in the southwestern portion of the county are agricultural, rural, suburban residential, commercial, light industrial, and open space. This portion of Sacramento County also contains the Stone Lakes National Wildlife Refuge (NWR), the Brannan Island State Recreation Area, and the Lower Sherman Island Waterfowl Management Area.

San Joaquin County

The study area includes about 317,360 acres of the western portion of San Joaquin County, representing the jurisdiction with the most land in the study area. This portion of the county is primarily agricultural but also includes areas of open space, particularly along riparian corridors, as well as some rural residential land uses. This area includes portions of the cities of Lathrop, Lodi, Manteca, Stockton, and Tracy. CDPs with at least some land in San Joaquin County and the study area include Country Club, Discovery Bay, French Camp, Lincoln Village, Mountain House, Terminous, and Thornton.

Solano County

Nearly 203,500 acres of southeastern Solano County lies within the study area. This portion of the county is characterized primarily by agricultural land uses and open space but the southern portion of this area also contains some suburban residential development. Rural residential land use is sparse but scattered throughout this portion of the county as well. Portions of the cities of Benicia, Fairfield, Rio Vista, and Suisun City lie within the county and the study area. Solano County also contains Suisun Marsh, the largest contiguous brackish water marsh remaining on the west coast of North America.

Suisun Marsh

At 116,000 acres, the Suisun Marsh includes 52,000 acres of managed wetlands, 27,700 acres of upland grasses, 6,300 acres of tidal wetlands, and 30,000 acres of bays and sloughs. Currently, 90% of the wetlands are diked and managed as food, cover, and nesting habitat for wildlife. A total of 230 miles of levees within the marsh provide critical protection of the drinking water for 22 million people by reducing saltwater intrusion into the Delta (California Department of Water Resources 2013).

Current land use in Suisun Marsh is a mixture of privately and state-managed lands. Existing land use designations in the Marsh include Marsh and Agriculture. The Marsh designation provides for protection of marsh and wetland areas. The land use permits aquatic and wildlife habitat, marsh-oriented recreational uses, agricultural activities compatible with the marsh environment and marsh habitat, educational and scientific research, educational facilities supportive of and compatible with marsh functions, and restoration of historical tidal wetlands (Solano County 2008). The Agriculture designation provides areas for the practice of agriculture as the primary use, including areas that contribute significantly to the local agricultural economy, and allows secondary uses that support the economic viability of agriculture. Commercial land uses in Suisun Marsh are limited to recreation-oriented uses, which include the Little Honker Bay Resort, Collinsville Resort, Pierce Harbor, Suisun Pacific Marina, Port of Suisun Marina, and City of Benicia Marina. As the demand for recreation increases, there may be a need for new facilities or expansion of existing facilities. A water-dependent industrial area is located in the southeast portion of Suisun Marsh east of Montezuma Slough and north of the Sacramento River near Collinsville. This area is specifically designed to accommodate industrial development along the Sacramento River. This waterfront represents one of the few remaining undeveloped areas with deep-water access in the San Francisco Bay Area.

Sutter County

The northernmost section of the study area also includes about 170 acres in southwestern Sutter County near Fremont Weir. This area of the county is designated as Open Space.

Yolo County

The study area includes approximately 111,390 acres in the southeastern portion of Yolo County. This area of the county consists primarily of agricultural land uses. Much of the city of West Sacramento is located within the study area, as well as the unincorporated community of Clarksburg. Approximately 10,200 acres of the Yolo Bypass Wildlife Area spans the northern and north-central portions of this part of the county. The Yolo Bypass Wildlife Area consists of 16,770 acres of wildlife habitat and agricultural land managed by the California Department of Fish and Wildlife (DFW) (California Department of Fish and Game 2008).

Yolo Bypass

The Yolo Bypass, a leveed, 59,000-acre floodplain, traverses the county from the Sutter County-Yolo County Line, near the Fremont Weir in the north, to the Yolo County-Solano County line in the south. The Yolo Bypass conveys floodflows generated by runoff from the Sacramento River watershed. Within this flood management context, most of the land within the Yolo Bypass is farmed, with a smaller amount (located largely in the southern portion of the Yolo Bypass within the statutory Delta) dedicated to publically- and privately-managed wetlands (Jones & Stokes 2001). Land use within the Yolo Bypass is restricted by easements held through the Sacramento–San Joaquin Drainage District, as amended by the State of California Reclamation Board (Reclamation Board) (Jones & Stokes 2001). However, these easements do not restrict the use of the land within the Yolo Bypass for agricultural and managed wetland (e.g., duck club) activities.

13.2 Regulatory Setting

This section identifies and discusses the federal, state, and local plans, policies, and regulations that govern land use in the study area. Generally state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water are not subject to local land use regulations and inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment.[1] However, this EIR/EIS, in assessing whether particular categories of environmental effects are adverse or beneficial (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact.

[1] See, e.g., *Hall v. Taft* (1956), 47 Cal. 2d 177, 183; *Town of Atherton v. Superior Court* (1958) 159 Cal.App.2d 417 and *Lawler v. City of Redding* (1992) 7 Cal. App. 4th 778, 784.

13.2.1 Federal Plans, Policies, and Regulations

13.2.1.1 Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan

The U.S. Fish and Wildlife Service (USFWS) prepared the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan (CCP) to guide management of fish, wildlife, plants, other natural resources, and visitor use on the refuge for the next 15 years (U.S. Fish and Wildlife Service 2007). The CCP supports a land conservation program that complements other regional efforts and initiatives. Management efforts expand and diversify habitats for migratory birds and a range of species at risk. The CCP promotes cooperative farming opportunities and encourages maintenance of traditional agricultural practices in southwestern Sacramento County that have proven benefits for migratory birds experiencing declines. Through cooperation with other agencies, conservation organizations, neighbors, and other partners, the CCP guides development and management of wetlands in a manner that reflects historic hydrologic patterns and is consistent with local, state, and federal floodplain management goals and programs.

The CCP management goals are as follows.

- Preserve, enhance, and restore a diverse assemblage of native Central Valley plant communities and their associated fish, wildlife, and plants.
- Preserve, enhance, and restore habitat to maintain and assist in the recovery of rare, threatened, and endangered plants and animals.
- Preserve, enhance, and restore wetlands and adjacent agricultural lands to provide foraging and sanctuary habitat needed to achieve the distribution and population levels of migratory waterfowl and other water birds consistent with the goals and objectives of the North American Waterfowl Management Plan and Central Valley Habitat Joint Venture.
- Create linkages between refuge habitats and habitats on adjacent lands to reverse past impacts of habitat fragmentation on wildlife and plants.
- Coordinate refuge land acquisition and management activities with other agencies and organizations to maximize the effectiveness of refuge contributions to regional habitat needs.
- Provide for environmental education, interpretation, and fish- and wildlife-oriented recreation in an urban setting accessible to large populations.
- Manage riverine wetlands and adjacent floodplain lands in a manner consistent with local, state, and federal flood management, sediment and erosion control, and water quality objectives.

13.2.1.2 Uniform Relocation Assistance and Real Property Acquisition Policies Act

Implementation of one or more of the BDCP alternatives may require that one or more parcels in the study area be acquired. Federal, state, and local government agencies, and others receiving federal financial assistance for public programs and projects that require the acquisition of real property, must comply with the policies and provisions set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in 1987 (42 United States Code [USC] Section 4601 et seq.), and its implementing regulation, 49 Code of Federal Regulations (CFR) Part

24. Relocation advisory services, moving cost reimbursement, replacement housing, and reimbursement for related expenses and rights of appeal are provided for by the act.

13.2.1.3 Federal Farmland Protection Policy Act

Under Federal law, the Farmland Protection Policy Act recognizes that the Nation's farmland is a unique natural resource and provides food and fiber necessary for the continued welfare of the people of the United States; that each year, a large amount of the Nation's farmland is irrevocably converted from actual or potential agricultural use to nonagricultural use; that the extensive use of farmland for nonagricultural purposes undermines the economic base of many rural areas; and that Federal actions, in many cases, result in the conversion of farmland to nonagricultural uses where alternatives actions would be preferred. See Chapter 14, *Agricultural Resources,* Section 14.2.1.1, for further discussion of the Farmland Protection Policy Act.

13.2.2 State Plans, Policies, and Regulations

13.2.2.1 1992 Delta Protection Act

The Delta Protection Act identified the Delta as a natural resource of statewide significance and formalized the state's commitment to preserve its diverse values. The purpose of the Delta Protection Act is to ensure protection, maintenance, and enhancement of the Delta environment; ensure orderly and balanced use of the Delta land resources; and improve flood protection to increase public health and safety.

The Delta Protection Act mandated a state-level planning effort to address the needs of Delta communities. DPC was made a permanent state agency in 2000 because a need for continued planning and management was identified. DPC has planning jurisdiction over portions of five counties: Contra Costa, Sacramento, San Joaquin, Solano, and Yolo. It was charged with developing a comprehensive regional plan to guide land use and resource management. The resulting Land Use and Resource Management Plan for the Primary Zone of the Delta was initially adopted by DPC in February 1995 and updated in 2010. With the adoption of the management plan or any amendments by DPC, all local governments, as defined in Public Resources Code Section 29725, must submit to the DPC proposed amendments that will be incorporated into their general plans, as defined in Government Code Section 65300 *et seq*., being consistent with respect to lands located in the Primary Zone of the Delta.

In November 2009, the Delta Protection Act was amended by SB 1 X7, also known as the Sacramento-San Joaquin Delta Reform Act. In addition to changing the size and composition of the Delta Protection Commission, the DPC was required to submit recommendations to the Legislature regarding expansion or changes to the boundaries of the Delta primary zone of the Delta by July 1, 2010, in particular with regards to Rio Vista, Isleton, Bethel Island, Brannan-Andrus Island, Cosumnes/Mokelumne floodway, and the San Joaquin/South Delta lowlands. SB 1 X7 also tasked the DPC with developing a proposal to protect, enhance, and sustain the unique cultural, historical, recreational, agricultural, and economic values of the Delta as an evolving place, in a manner consistent with the coequal goals, as well as a plan to establish state and federal designation of the Delta as a place of special significance, which could include application for a federal designation of the Delta as a National Heritage Area. This proposal was to be considered and incorporated into the Delta Stewardship Council's Delta Plan. That proposal evolved into the Delta Plan recommendation DP R1, which states that the Delta Protection Commission should complete its application for

designation of the Delta and Suisun March as a National Heritage Area and the federal government should complete the process in a timely manner. The Council and the Delta Plan are described in more detail below.

Land uses in the Delta Primary Zone are subject to review by DPC for consistency with the management plan. DPC does not have land use authority, but it can suspend local projects under an appeal process while it reviews them for consistency with the Delta Protection Act and the *Land Use and Resource Management Plan for the Primary Zone of the Delta*. The plan is described in more detail in the following section.

Delta Protection Commission Land Use and Resource Management Plan

The DPC adopted its Land Use and Resource Management Plan (LURMP) for the Primary Zone of the Delta on February 23, 1995. The updated plan was approved by the California Office of Administrative Law (OAL) on October 7, 2010, and became effective on November 6, 2010. It contains policies to protect the Delta's unique character, expand public access and recreation, and locate new transmission lines and utilities within existing corridors to minimize impacts (Delta Protection Commission 2010). These policies are required by law to be incorporated into the local general plans of the counties with jurisdiction over portions of the Primary Zone. Where someone believes that a local planning decision is inconsistent with the LURMP, such a decision can be appealed to the DPC for a determination of consistency with the LURMP. Nothing in the law makes the LURMP binding on state agencies such as the California Department of Water Resources (DWR) as a proponent of the BDCP.

The LURMP is composed of seven elements: Land Use, Agriculture, Natural Resources, Recreation and Access, Water, Levees, and Utilities and Infrastructure. Relevant goals and policies from the LURMP related to avoiding and mitigating environmental impacts are listed below (Delta Protection Commission 2010). The relevant goals of the LURMP are as follows.

- Protect the unique character and qualities of the Primary Zone by preserving the cultural heritage, strong agricultural/economic base, unique recreational resources, and biological diversity of the Primary Zone. Direct new nonagriculturally oriented non-farmworker residential development within the existing unincorporated towns (Walnut Grove, Clarksburg, Courtland, Hood, Locke, and Ryde).
- To support long-term viability of agriculture and to discourage inappropriate development of agricultural lands.
- The priority land use of areas in the Primary Zone shall be oriented toward agriculture and open space. If agriculture is no longer appropriate, land uses that protect other beneficial uses of Delta resources and that would not adversely affect agriculture on surrounding lands or the viability or cost of levee maintenance, may be permitted. If temporarily taken out of agriculture production due to lack of adequate water supply or water quality, the land shall remain reinstateable to agriculturally-oriented uses for the future.
- Preserve and protect the natural resources of the Delta. Promote protection of remnants of riparian and aquatic habitat. Encourage compatibility between agricultural practices and wildlife habitat.
- Protect and enhance long-term water quality in the Delta for agriculture, municipal, industrial, water-contact recreation, and fish and wildlife habitat uses, as well as all other beneficial uses.

- Ensure that the construction of new utility and infrastructure facilities is appropriate and the impacts of such new construction on the integrity of levees, wildlife, recreation, agriculture and Delta communities are avoided, minimized and mitigated.

Relevant policies identified by the LURMP include those listed below.

- **Land Use P-3:** New non-agriculturally oriented residential, recreational, commercial, habitat, restoration, or industrial development shall ensure that appropriate buffer areas are provided by those proposing new development to prevent conflicts between any proposed use and existing adjacent agricultural parcels. Buffers shall adequately protect integrity of land for existing and future agricultural uses and shall not include uses that conflict with agricultural operations on adjacent agricultural lands. Appropriate buffer setbacks shall be determined in consultation with local Agricultural Commissioners, and shall be based on applicable general plan policies and criteria included in Right-to-Farm Ordinances adopted by local jurisdictions.
- **Land Use P-6:** Subsidence control shall be a key factor in evaluating land use proposals. Encourage agricultural, land management, recreational, and wildlife management practices that minimize subsidence of peat soils. Local governments should utilize studies of agricultural and land management methods that minimize subsidence and should assist in educating landowners and managers as to the value of utilizing these methods.
- **Land Use P-7:** New structures shall be set back from levees and areas that may be needed for future levee expansion consistent with local reclamation district regulations and, upon adoption, with the requirements to be identified in the California Department of Water Resources Central Valley Flood Control Plan.
- **Land Use P-8:** Local government policies regarding mitigation of adverse environmental impacts under the California Environmental Quality Act may allow mitigation beyond county boundaries, if acceptable to reviewing fish and wildlife agencies and with approval of the recipient jurisdiction, for example in approved mitigation banks or in the case of agricultural loss to mitigation. Mitigation in the Primary Zone for loss of agricultural lands in the Secondary Zone may be appropriate if the mitigation program supports continued farming in the Primary Zone. California Government Code Section 51256.3 (Assembly Bill 797) specifically allows an agricultural conservation easement located within the Primary or Secondary Zone of the Delta to be related to Williamson Act contract rescissions in any other portion of the secondary zone without respect to County boundary limitations.
- **Land Use P-11:** Local governments may develop programs to cluster residential units that allow property owners to engage in limited property development in order to ensure the efficient use and conservation of agricultural lands, support open space values, and protect sensitive environmental areas in the Primary Zone. Clustered development occurs when contiguous or non-contiguous parcels are developed to cluster lots for residential use. The purpose of clustered development is to provide a mechanism to preserve agricultural land and open space, to locate housing in areas that can readily be served by public services and utilities, and provide the agricultural community an alternative to transfer of development rights. Clustered development programs shall ensure that the number of clustered lots created does not exceed the allowable density requirement for the zoning of the sum of the parcels. Clustered development may only be used one time. Neither the clustered lots nor the remainder lots may be further subdivided. Residential development shall be consistent with local General Plan policies and zoning regulations and standards.

- **Land Use P-12:** Local governments may develop transfer of development rights (TDR) programs that allow land owners to transfer the development right from one parcel of land to another. The purpose of these TDR programs would be to ensure the efficient use and conservation of agricultural lands, to support open space values, and to protect sensitive environmental areas within the Primary Zone. This purpose would be achieved by relocating development rights within the Primary Zone to more suitable areas such as adjacent to or within existing urban areas within or outside of the Primary Zone, or to provide expanded opportunities for affordable farm worker housing. TDR programs shall ensure that the transferred development density does not exceed the development density identified for the zoning for the sending parcel, and that any farm worker housing is restricted and regulated for that purpose. The land upon which the development rights are transferred from would be restricted with a permanent conservation easement. Receiving areas must have the infrastructure capacity, public services and utilities to absorb the new development.
- **Land Use P-14:** The conversion of an agricultural parcel, parcels, and/or an agricultural island for water impoundment, including reservoirs, water conveyance or wetland development may not result in the seepage of water onto or under the adjacent parcel, parcels, and/or island. These conversions shall mitigate the risks and adverse effects associated with seepage, levee stability, subsidence, and levee erosion, and shall be consistent with the goals of this Plan.
- **Agriculture P-2:** Conversion of land to non-agriculturally-oriented uses should occur first where productivity and agricultural values are lowest.
- **Agriculture P-5:** Local governments shall encourage implementation of the necessary plans and ordinances to: maximize agricultural parcel size; reduce subdivision of agricultural lands; protect agriculture and related activities; protect agricultural land from conversion to non-agriculturally-oriented uses. An optimum package of regulatory and incentive programs could include: (1) an urban limit line; (2) minimum parcel size consistent with local agricultural practices and needs; (3) strict subdivision regulations regarding subdivision of agricultural lands to ensure that subdivided lands will continue to contain agriculturally-oriented land uses; (4) require adequate buffers between agricultural and non-agricultural land uses particularly residential development outside but adjacent to the Primary Zone; (5) an agriculture element of the general plan; (6) a Right-to-Farm ordinance; and (7) a conservation easement program.
- **Agriculture P-6:** Encourage acquisition of agricultural conservation easements from willing sellers as mitigation for projects within each county. Promote use of environmental mitigation in agricultural areas only when it is consistent and compatible with ongoing agricultural operations and when developed in appropriate locations designated on a countywide or Delta-wide habitat management plan.
- **Agriculture P-7:** Encourage management of agricultural lands which maximize wildlife habitat seasonally and year-round, through techniques such as fall and winter flooding, leaving crop residue, creation of mosaic of small grains and flooded areas, wildlife friendly farming, controlling predators, controlling poaching, controlling public access, and others.
- **Agriculture P-8:** Encourage the protection of agricultural areas, recreational resources and sensitive biological habitats, and the reclamation of those areas from the destruction caused by inundation.

- **Natural Resources P-1:** Preserve and protect the natural resources of the Delta. Promote protection of remnants of riparian and aquatic habitat. Encourage compatibility between agricultural practices, recreational uses and wildlife habitat.
- **Natural Resources P-2:** Encourage farmers to implement management practices to maximize habitat values for migratory birds and other wildlife. Appropriate incentives, such as: purchase of conservation easements from willing sellers or other actions, should be encouraged.
- **Natural Resources P-3:** Lands managed primarily for wildlife habitat should be "Coordinated Resource Management and Planning" (Public Resources Code Section 9408(c)) should ensure full participation by local government and property owner representatives.
- **Natural Resources P-4:** Support the non-native invasive species control measures being implemented by the California Department of Fish and Game, the California Department of Boating and Waterways, the California Emergency Management Agency, the California Department of Food and Agriculture, the State Water Resources Control Board, the Central Valley and San Francisco Bay Regional Water Quality Control Boards, and the Agricultural Commissioners for the five Delta Counties (Yolo, Solano, Sacramento, San Joaquin, and Contra Costa), which include controlling the arrival of new species into the Delta.
- **Natural Resources P-7:** Incorporate, to the maximum extent feasible, suitable and appropriate wildlife protection, restoration and enhancement on publicly-owned land as part of a Delta-wide plan for habitat management.
- **Natural Resources P-9:** Protect and restore ecosystems and adaptively manage them to minimize impacts from climate change and other threats and support their ability to adapt in the face of stress.
- **Recreation & Access P-4:** Encourage new regional recreational opportunities, such as Delta-wide trails, which take into consideration environmental, agricultural, infrastructure, and law enforcement needs, and private property boundaries. Also, encourage opportunities for water, hiking, and biking trails.
- **Recreation & Access P-8:** Ensure, for the sake of the environment and water quality, the provision of appropriate restroom, pump-out and other sanitation and waste management facilities at new and existing recreation sites, including marinas; encourage the provision of amenities including but not limited to picnic tables and boat-in destinations.
- **Recreation & Access P-10:** Promote and encourage Delta-wide communication, coordination, and collaboration on boating and waterway-related programs including but not limited to marine patrols, removal of debris and abandoned vessels, invasive species control and containment, clean and safe boating education and enforcement, maintenance of existing anchorage, mooring and berthing areas, and emergency response in the Delta.
- **Water P-1:** State, federal and local agencies shall be strongly encouraged to preserve and protect the water quality of the Delta both for in-stream purposes and for human use and consumption.
- **Utilities and Infrastructure P-1:** Impacts associated with construction of transmission lines and utilities can be mitigated by locating new construction in existing utility or transportation corridors, or along property lines, and by minimizing construction impacts. Before new transmission lines are constructed, the utility should determine if an existing line has available capacity. To minimize impacts on agricultural practices, utility lines shall follow edges of fields.

Pipelines in utility corridors or existing rights-of-way shall be buried to avoid adverse impacts to terrestrial wildlife. Pipelines crossing agricultural areas shall be buried deep enough to avoid conflicts with normal agricultural or construction activities. Utilities shall be designed and constructed to minimize any detrimental effect on levee integrity or maintenance, agricultural uses and wildlife within the Delta. Utilities shall consult with communities early in the planning process for the purpose of creating an appropriate buffer from residences, schools, churches, public facilities and inhabited marinas.

- **Utilities and Infrastructure P-3:** Ensure that new municipal sewage treatment facilities (including storage ponds) that support development or business outside of the Delta Primary Zone are not located within the Delta Primary Zone. The Rio Vista project, as described in the adopted Final Environmental Impact Report for such project, and the Ironhouse Sanitary District use of Jersey Island for disposal of treated wastewater and biosolids are exempt from this policy.
- **Utilities and Infrastructure P-4:** Encourage recycling programs for metals, glass, paper, cardboard, and organic materials in order to minimize waste generation. Recycling facilities for these materials should be suitably located to serve Delta residents, visitors, and businesses. High groundwater tables and subsiding soil make the Delta an inappropriate location for solid waste disposal.

Great California Delta Trail Blueprint Report for Contra Costa and Solano Counties

SB 1556 from 2006 requires DPC to establish "a continuous recreation corridor, including bicycle and hiking trails, around the Delta." The legislation also requires a Great Delta Trail to link to the San Francisco Bay Trail system and planned Sacramento River trails in Yolo and Sacramento counties. To comply with SB 1556, the Delta Protection Commission adopted the Great California Delta Trail Blueprint Report for Contra Costa and Solano Counties (Trail Blueprint) in September 2011. The Trail Blueprint establishes a vision, 11 goals and 68 policies for a system of land and water trails in and through the Delta. The document contains a review of the setting and opportunities in Contra Costa and Solano counties, an action plan to implement the vision and goals, outreach and engagement strategies, and a description of trail concepts (Alta Planning + Design 2010). The Trail Blueprint is also intended to serve as a template for the Great Delta Trail planning process in Sacramento, San Joaquin and Yolo counties.

Many of the Trail Blueprint policies relate in some way to the BDCP. The policies most relevant to the BDCP are listed below.

- **Policy 1.5:** Increase awareness and appreciation of Delta community features, environment, and sensitive resources within the region and beyond.
- **Policy 2.4:** Engage key local, regional and state agencies and organizations and a broad spectrum of community stakeholders in creating and implementing the Delta Trail Plan.
- **Policy 3.8:** Connect the trail to and through existing regional open space areas and publicly owned areas, including but not limited to Liberty Island, Prospect Island, Rush Ranch, Sherman Island, Grand Island, Franks Tract, Brannan Island, Decker Island, Brown Island, Bay Point Regional Shoreline, Big Break Regional Shoreline, Antioch Regional Shoreline, Concord Naval Weapons Station, Martinez Regional Shoreline, Point Edith Wetlands, Carquinez Straight Shoreline, Waterbird Regional Preserve, and the Delta Trail Extension along Old River in East Contra Costa.

- **Policy 4.1:** Use existing public lands, easements and other public rights-of-way, including established routes and existing levees and utility corridors where possible.
- **Policy 7.2:** Coordinate trail planning and development and actively identify joint use opportunities with other jurisdictions and organizations, including the counties, local cities, Friends of the Delta Trail, chambers of commerce, the East Bay Regional Parks District, Department of Agriculture, Solano Land Trust, California Department of Parks and Recreation, California Department of Water Resources, U.S. Army Corps of Engineers, California Department of Boating and Waterways, utility and energy companies, the Delta Science Center, Discover the Delta, Dutch Slough Project, Reclamation Districts, and other agencies and groups.
- **Policy 7.5:** Coordinate and integrate with other Delta projects for ecosystem restoration, flood control, and water supply.
- **Policy 8.1:** Plan and design trails to avoid or minimize environmental impacts, including natural and cultural resources and impacts on adjacent land uses.
- **Policy 8.4:** Plan and design to avoid negative impacts to native plants and wildlife habitat, especially sensitive or special-status species and nesting areas.
- **Policy 8.5:** Plan and manage trails and trail use to avoid impacts of animal access on water quality or adjacent agricultural areas, and to avoid the spread of invasive species (seeds, plants, pathogens, animals).

13.2.2.2 The Delta Plan

In November 2009, the California Legislature enacted SB 1 X7, also known as the Sacramento-San Joaquin Delta Reform Act. The Delta bill created a new Delta Stewardship Council (DSC) and gave this body broad oversight of Delta planning and resource management. The DSC is tasked with developing, adopting, and commencing implementation of a long-term plan (the "Delta Plan") which will be a legally enforceable, comprehensive management plan designed to meet the two co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place" (CA Water Code SS 85054).

The Delta Plan generally covers five topic areas and goals: increased water supply reliability, restoration of the Delta ecosystem, improved water quality, reduced risks of flooding in the Delta, and protection and enhancement of the Delta. The Delta Stewardship Council does not propose constructing, owning, or operating any facilities related to these five topic areas. Rather, the Delta Plan sets forth regulatory policies and recommendations that seek to influence the actions, activities, and projects of cities and counties and state, federal, regional, and local agencies toward meeting the goals in the five topic areas.

Eight draft versions of the Delta Plan were written between February 2011 and November 2012. The Proposed Final Delta Plan, as well as the Final Delta Plan Program EIR and the Final Rulemaking Package, were adopted by the DSC at its May 16, 2013 meeting. Once the State Office of Administrative Law and California Secretary of State approve the plan, the proposed policies in the Delta Plan will become enforceable regulations. The Proposed Final Delta Plan consists of 14 policies and 73 regulations (Delta Stewardship Council 2013).

Under Water Code Section 85320, subdivision (e), DSC must incorporate the BDCP into the approved Delta Plan if the BDCP meets certain requirements. Specifically, DFW must approve the BDCP in the form of a Natural Community Conservation Plan (NCCP) and must determine that the BDCP meets the requirements of Section 85320 (including EIR content requirements), and that the BDCP has been approved under the federal Endangered Species Act (ESA) as a Habitat Conservation Plan (HCP). The requirements of Section 85320 are summarized below in Section 13.3.1. These determinations by DFW are subject to appeal to the DSC. The DSC is a responsible agency with regard to the BDCP.

Any project subject to the DSC review must file a certification of consistency with the Delta Plan. Although the BDCP is not a project for which a certification of consistency must be prepared, the analysis in this chapter discusses how the BDCP is consistent with the 14 policies of the Final Draft Delta Plan. Additional discussion of the relationship between BDCP and the Delta Plan can be found in Appendix 3I, *BDCP Compliance with the 2009 Delta Reform Act*.

13.2.2.3 California Department of Parks and Recreation

General Plan for Brannan Island and Franks Tract State Recreation Areas

The *General Plan for Brannan Island and Franks Tract State Recreation Areas* was adopted by the California State Park and Recreation Commission in November 1987. The general plan describes the resource management policies, allowable use levels, land use and facility recommendations, and interpretive recommendations for the two state recreation areas. The general plan is intended to guide acquisition, land use, development, and operation of these two recreation facilities and describes an improvement program for the Brannan Island State Recreation Area that addresses many landscape and habitat management zones for the park (California Department of Parks and Recreation 1987). These management zones establish the basis for various planning strategies that are consistent with the overall resource management, interpretive, and recreation use goals.

The purpose of Brannan Island State Recreation Area is "to make permanently available to the people the opportunity to use and enjoy a portion of the Delta region of California and its extensive inland waterways." In addition, "the function of the Department of Parks and Recreation at Brannan Island State Recreation Area is to provide facilities and opportunities for the enjoyment of a variety of water-oriented and other recreational activities, consistent with the declared purpose of the unit." The policies for Brannan Island State Recreation Area focus on maintaining and enhancing the natural resources in the State Recreation Area, some of which are relevant to the restoration actions proposed under the alternatives evaluated in this EIR/EIS.

- Recommend and support all measures to maintain the quality and flow of hydrologic resources affecting the unit.
- Control exotic and undesirable plant species.
- Revegetate with indigenous plant species where appropriate.
- Restore and enhance riparian and freshwater wetland ecosystems.
- Protect and enhance existing rare and endangered plant habitat.
- Perpetuate suitable habitat for animal species that are threatened, endangered, or of special concern.

The purpose of Franks Tract State Recreation Area is "to perpetuate as a recreation resource, the flooded island in the Sacramento-San Joaquin Delta known as 'Franks Tract,' and to provide permanently the opportunity for water-related recreational activities…"; in addition, "the function of the Department of Parks and Recreation at Franks Tract State Recreation Area is to provide facilities and services for public enjoyment of the features and recreational opportunities afforded by this unit." The policies for Franks Tract State Recreation Area, which encompasses the inundated islands of Franks Tract and Little Franks Tract, focus on maintaining water quality, protecting soils, and protecting and enhancing habitat and species. Some of the management goals relevant to the restoration actions proposed under the alternatives evaluated in this EIR/EIS are as follows.

- Recommend and support all measures to maintain the quality and flow of hydrologic resources affecting the unit.
- Control Himalayan blackberry and other exotic plant species.
- Landscape with desirable or indigenous plant species.
- Protect and reestablish riparian and freshwater wetland ecosystems.
- Locate, protect, and manage existing rare and endangered plants.
- Develop a wildlife management plan.
- Perpetuate suitable habitat for animal species that are threatened, endangered, or of special concern.

Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh

The Sacramento-San Joaquin Delta Reform Act mandated that the Department of Parks and Recreation develop recommendations to expand state recreation areas in the region. To comply with the legislation, the Department of Parks and Recreation issued the Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh in May 2011. While the Recreation Proposal is not a binding policy document and it concedes that funding is not currently available to implement the recommendations, the Recreation Proposal does represent the department's vision for the region (California State Parks 2011). The document states, "The proposal recommends a network of recreation areas, including parks, resorts, boating facilities, historic communities, agritourism attractions, and other visitor-oriented businesses. These areas would be connected by scenic driving routes, boating trails, or bicycling and hiking trails. Proposal recommendations aim to provide visitors and residents authentic outdoor experiences rooted in the unique and enduring character of the Delta and Suisun Marsh."

The Recreation Proposal recommends improvement and, in some cases, expansion of four recreation areas in the Delta (Delta Meadows and Locke Boarding House, Stone Lakes, and Brannan Island and Franks Tract state recreation areas) and six state parks near the Delta and Suisun Marsh (Old Sacramento State Historic Park and California Indian Heritage Center, Caswell Memorial State Park, Bethany Reservoir State Recreation Area, the State Historic Park at John Marsh/Cowell Ranch, Benicia Capitol State Historic Park, and Benicia State Recreation Area). The Recreation Proposal further recommends creation of four new state parks in the region at Barker Slough, Elkhorn Basin, Wright-Elmwood Tract and in the south Delta, possibly near Old River.

13.2.2.4 California Department of Fish and Wildlife

DFW owns and manages several areas in the Delta, primarily for habitat and species protection and enhancement. Land management plans have been prepared for only two of the seven areas owned by DFW: Yolo Bypass Wildlife Area and Lower Sherman Island Wildlife Area. The other areas are managed under the California Fish and Game Code and Title 14 of the California Code of Regulations.

Yolo Bypass Wildlife Area Land Management Plan

DFW prepared the Yolo Bypass Wildlife Area Land Management Plan to accomplish the following.

- Guide the management of habitats, species, appropriate public use, and programs to achieve DFW's mission.
- Direct an ecosystem approach to managing the Yolo Bypass Wildlife Area in coordination with the objectives of the CALFED Ecosystem Restoration Program.
- Identify and guide appropriate, compatible public-use opportunities within the Yolo Bypass Wildlife Area.
- Direct the management of the Yolo Bypass Wildlife Area in a manner that promotes cooperative relationships with adjoining private-property owners.
- Establish a descriptive inventory of the sites and the wildlife and plant resources that occur in the Yolo Bypass Wildlife Area.
- Provide an overview of the Yolo Bypass Wildlife Area's operation, maintenance, and personnel requirements to implement management goals, and serve as a planning aid for preparation of the annual budget for the Bay-Delta region (Region 3).
- Present the environmental documentation necessary for compliance with state and federal statutes and regulations, provide a description of potential and actual environmental impacts that may occur during plan management, and identify mitigation measures to avoid or lessen these impacts.

The land management plan identifies eight elements and eight goals that provide broad guidance for management of the Yolo Bypass Wildlife Area and tasks to achieve those goals. The goals focus on managing and maintaining habitat communities for many species; preventing the introduction and spread of invasive nonnative species; restoring and enhancing wetlands; maintaining, restoring, and enhancing aquatic, riparian, and upland communities (California Department of Fish and Game 2008).

Lower Sherman Island Wildlife Area Land Management Plan

DFW prepared the Lower Sherman Island Wildlife Area Land Management Plan to accomplish the following (California Department of Fish and Game 2007).

- Guide management of habitats, species, and programs to achieve DFW's mission to protect and enhance wildlife values.
- Serve as a guide for appropriate public uses of the Lower Sherman Island Wildlife Area.
- Serve as a descriptive inventory of fish, wildlife, and native plant habitats that occur on and species that use the wildlife area.

- Provide an overview of the property's operation and maintenance and of the personnel requirements associated with implementing management goals.
- Present the environmental documentation necessary for compliance with state and federal statutes and regulations, provide a description of potentially significant environmental impacts that may occur during plan management, and identify mitigation measures to avoid or lessen these impacts.

The land management plan has 11 elements and identifies 34 goals that describe the management of each element and the intended long-term results and 142 tasks that identify individual projects or work elements that implement the goals (California Department of Fish and Game 2007). The goals contained in the Biological Element of the plan all promote habitat restoration or enhancement of riparian areas and marsh and aquatic ecosystems or preventing the introduction and spread of invasive species within the management area. These goals are relevant to the restoration activities proposed under the action alternatives evaluated in this EIR/EIS.

13.2.2.5 California Land Conservation Act of 1965

The California Land Conservation Act (Williamson Act) is an agricultural land protection program enacted by the California Legislature in 1965 to help maintain the agricultural economy of the state by preserving its agricultural land. The Williamson Act discourages premature and unnecessary conversion of agricultural land to urban uses. Cities and Counties implement the legislation by creating agricultural preserves, which are generally comprised of at least 100 acres of farmland. Once a preserve has been established, an individual landowner can enter into a contract with the county, which binds the land to remain in agricultural use for at least ten years. Counties have continuing roles in administering the act with respect to compatibility guidelines and nonrenewal or cancellation of contracts.

The Williamson Act also provides for Farmland Security Zones. A Farmland Security Zone (FSZ, also termed "Super-Williamson Act") is an area created within an agricultural preserve by a board of supervisors or city council at the request of a landowner or landowners. The boundary is designated by resolution of the board having jurisdiction.

Unlike a standard Williamson Act contract, cities and special districts that provide non-agricultural services are generally prohibited from annexing land enrolled under an FSZ contract, and school districts are prohibited from acquiring Farmland Security Zone lands for school facilities. Also, the minimum initial term is 20 years. Finally, cancellation of an FSZ contract requires a cancellation fee equal to 25% (compared with 12.5%) of the unrestricted fair market value of the affected property, and, in additional to the approval by the board of supervisors, also requires the approval of the Director of the Department of Conservation (by delegation from the Secretary for Natural Resources).

An FSZ contract is otherwise closely related to a standard Williamson Act contract in that it also enforceably restricts land to agricultural or enumerated open space uses. Like a Williamson Act contract, Farmland Security Zone contracts renew annually unless either party files a "notice of nonrenewal."

The Williamson Act imposes procedural responsibilities on public entities seeking to acquire interests in land (including easements) within a preserve, whether or not the land is under contract, and additional procedural requirements when any property interest in land under contract is

actually acquired. The Act also provides that if land is acquired by or in lieu of eminent domain, the contract is void for any contracted property subject to the eminent domain action.

Under the provisions of the Open Space Subvention Act, the Secretary for Natural Resources is authorized to request the Attorney General to enforce any Williamson Act contract for which any open space subvention payment has ever been made by the State. The Williamson Act also provides broad standing for citizens to enforce a contract.

13.2.2.6 California Relocation Assistance Act

Parallel to the Uniform Relocation Assistance and Real Property Acquisition Policies Act described above in Section 13.2.1.2, California Government Code, Section 7260, et seq. requires state and local governments to provide relocation assistance and benefits to any person, business, farm, or nonprofit operation displaced by programs or projects undertaken by a public entity. Assistance includes providing information regarding availability, sales prices, and rentals of comparable replacement dwellings for displaced homeowners and tenants, and similar information for suitable locations for businesses and farm operations. This Act also includes provisions for payment to displaced individuals for moving and related expenses and requires that, within a reasonable period of time prior to displacement, comparable replacement housing be made available or provided to each displaced person.

13.2.3 Regional and Local Plans, Policies, and Regulations

This section presents the regional and local plans, policies, and regulations that may be relevant to implementation of one or more of the BDCP alternatives. Generally, state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, are not subject to local land use regulations and inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment.[2] However, this EIR/EIS, in assessing whether particular categories of environmental effects (e.g., biological or cultural resources) are adverse or beneficial (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact. Relevant regional or local HCPs and NCCPs are presented in Chapter 12, *Terrestrial Biological Resources*, Section 12.3.3.18, *Effects on Other Conservation Plans*.

13.2.3.1 San Francisco Bay Plan

The San Francisco Bay Plan, which was developed to guide the future protection and use of the San Francisco Bay and its shoreline, was developed and adopted by the San Francisco Bay Conservation and Development Commission (SFBCDC) in 1968. The SFBCDC also proposes and ratifies amendments to the Bay Plan. The McAteer-Petris Act, which first established the Commission on a temporary basis, was then revised to direct the SFBCDC to carry out the plan provisions and oversee permitting activities related to placing fill, extracting minerals, or changing the use of any land, water, or structure within the Commission's jurisdictional boundaries, which includes Suisun Marsh. Bay Plan maps and policies guide the protection of the San Francisco Bay and its tributary waterways, marshes, managed wetlands, salt ponds, and shoreline. Plan maps identify areas

[2] See, e.g., *Hall v. Taft* (1956), 47 Cal. 2d 177, 183; *Town of Atherton v. Superior Court* (1958) 159 Cal.App.2d 417 and *Lawler v. City of Redding* (1992) 7 Cal. App. 4th 778, 784.

designated for "priority uses" which include Wildlife Refuge, Waterfront Park, Beach; Water-Related Industry; Port. Other land designations that the Plan identifies include Tidal Marsh, Salt Pond, and Managed Wetland.

13.2.3.2 Suisun Marsh Protection Act

In 1974, the California Legislature passed the Suisun Marsh Protection Act, designed to preserve the Suisun Marsh from residential, commercial, and industrial development. The act directed SFBCDC and DFW to prepare a protection plan for the Suisun Marsh "to preserve the integrity and assure continued wildlife use" of the marsh. The planning program conducted by SFBCDC involved preparation and tentative adoption of a series of nine background planning reports, which provided the information needed to prepare the findings and policies of the final *Suisun Marsh Protection Plan*, and allowed extensive opportunities for public involvement through hearings before SFBCDC (San Francisco Bay Conservation and Development Commission 1976).

The objectives of the protection plan are to preserve and enhance the quality and diversity of the Suisun Marsh aquatic and wildlife habitats and to ensure retention of upland areas adjacent to the marsh in uses compatible with its protection. The protection plan includes: (1) a primary management area encompassing the 89,000 acres of tidal marsh, managed wetlands, adjacent grasslands, and waterways over most of which SFBCDC has jurisdiction; and (2) a secondary management area of approximately 22,500 acres of significant buffer lands. Under specific guidelines in each area, Solano County is responsible for preparing and administering a local protection program. SFBCDC would represent the state's interest, serving as the land use permitting agency for major projects in the primary management area, and as an appellate body with limited functions in the secondary management area (San Francisco Bay Conservation and Development Commission 1976).

Suisun Marsh Local Protection Program

Under the Suisun Marsh Protection Act, Solano County is required to bring general plan policies, regulations, programs, and operating procedures into conformity with the provision of the Suisun Marsh Protection Act and the *Suisun Marsh Protection Plan* through the preparation of a local protection program. Solano County's component of the local protection program includes general plan policies and other policies, programs, and regulations to preserve and enhance the wildlife habitat of the Suisun Marsh and to ensure retention of upland areas adjacent to the marsh in uses compatible with its protection (Solano County 2008).

All public and private management and development activities within the primary and secondary management areas of the Suisun Marsh will be consistent with the policies and provisions of the Suisun Marsh Protection Plan as adopted by the SFBCDC. The plan contains many policies under the headings of Environment, Water Supply and Quality, and Land Use and Marsh Management which promote habitat protection, restoration, and enhancement and are relevant to the restoration activities proposed under the action alternatives evaluated in this EIR/EIS.

13.2.3.3 Local Airport Land Use Compatibility Plans

The State Aeronautics Act (California Public Utilities Code Section 21670 *et seq*.) establishes the statewide requirements for the conduct of airport land use compatibility planning. The local Airport Land Use Commission (ALUC), which is typically a county or regional entity, adopts airport land use compatibility plans (sometimes called airport comprehensive land use plans) for public use airports

and airports with scheduled airline service within the ALUC's jurisdiction. A compatibility plan adopted by an ALUC is intended to protect public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive noise, and to prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports. A compatibility plan establishes planning boundaries around the airport and sets compatibility guidelines. Government Code Section 65302 requires city and county general plans, specific plans, zoning ordinances and other land use regulations to comply with an adopted airport land use compatibility plan. However, while a plan adopted by an ALUC designates compatible and incompatible uses within an airport's planning area, the plan is not controlling. A local board of supervisors or city council, if it makes certain findings, can overrule an airport plan and approve regulations and development projects that the airport plan deems necessary. An ALUC does not have jurisdiction over airport operations.

Several public and private airports lie within or near the study area. Water conveyance facilities may be constructed within the vicinity of Borges-Clarksburg Airport and Byron Airport. In addition, Kingdon Executive, New Jerusalem, Rio Vista, Sacramento International and Tracy Municipal airports and Travis Air Force Base also lie within or near the study area. Land use compatibility plans have been adopted for all of these airports and are discussed below. Potential hazards involving the risk of increased aircraft-bird strikes as a result of the proposed restoration activities are evaluated as Impact HAZ-8 in Chapter 24, *Hazards and Hazardous Materials*.

Borges-Clarksburg Airport Comprehensive Land Use Plan

The Sacramento Area Council of Governments (SACOG) serves as the Airport Land Use Commission for Sacramento, Sutter, Yolo and Yuba counties. SACOG adopted the Borges-Clarksburg Airport Comprehensive Land Use Plan (CLUP) in 1994. The facility is a privately owned, general aviation airport in Eastern Yolo County, about one mile northeast of the town of Clarksburg. At the time the Borges-Clarksburg CLUP was adopted, the airport had about 6,000 annual operations, and 18 aircraft were based there. The Borges-Clarksburg CLUP applies to land in unincorporated Yolo and Sacramento counties.

The Borges-Clarksburg CLUP designates three safety zones: A Clear Zone that covers the runway and extends outward 1,000 feet from the ends, an Approach/Departure Zone that extend 2,000 feet from the runway ends, and an Overflight Zone that generally coincides with normal air traffic patterns. The airport and all territory covered by the safety zones lie within the study area, and the location of some water conveyance facilities would be within the Overflight Zone.

The Borges-Clarksburg CLUP finds the following uses to be incompatible with the Clear Zone and Approach/Departure Zone.

- Any use that would direct distracting lights at an aircraft.
- Any use that would cause sunlight to reflect toward a climbing or landing aircraft.
- Any use that would generate smoke, attract large concentrations of birds, or affect safe aircraft navigation.
- Any use that could generate electrical interference that could deter aircraft or airport instrumentation.
- Hazardous installations such as aboveground oil, gas or chemical storage, except facilities for noncommercial, private domestic or private agricultural use.

The Borges-Clarksburg CLUP deems nearly all development other than limited agricultural uses to be incompatible with the Clear Zone. Among uses considered compatible with the Approach/ Departure Zone are roads, highways and rail lines; parking lots; open space and natural areas; natural water areas; and agricultural activities. Open space and natural areas and natural water areas are considered incompatible if they result in concentrations of more than 25 people per acre, the aboveground storage of flammable or explosive material, a water area that may cause ground fog, a bird hazard, or high-intensity uses such as ballfields or picnic pavilions.

Most land uses are considered compatible with the Overflight Zone, unless they have the potential to cause ground fog or a bird hazard, interfere with aircraft or airport instrumentation, or attract large congregations of people.

Byron Airport Land Use Compatibility Plan

The Byron Airport, located west of Clifton Court Forebay in Contra Costa County, has a Land Use Compatibility Plan (LUCP) that outlines different policies based on proximity to the airport. In addition to those specific guidelines mentioned below, the plan describes the applicability of exceptions to usage intensity limits, acceptable noise exposure levels, a prohibition of any land use in the Byron Airport influence area which would result in an increased attraction of birds, and a description of open land criteria.

In those areas closest to the airport, "Zone A," policies include the following.

- No new structures are permitted other than aeronautical facilities the location of which is set by FAA Criteria.
- Outdoor activities shall be limited to a maximum of 10 people per gross acre.
- Storage of fuel and other hazardous materials is specifically prohibited.
- Any future nonaviation development or use of property within *Compatibility Zone A* shall meet the criteria for open land.

"Zone B1," policies include the following.

- An average intensity of no more than 25 people per gross acre on the site at any time.
- A maximum intensity on any single acre of no more than 50 people at any time.
- Buildings shall be located as far as practical from the extended runway centerline and shall be limited to a maximum of two stories in height.
- Aboveground bulk storage of hazardous materials is prohibited with the exception of on-airport storage of aviation fuel or up to 2,000 gallons of nonaviation flammable materials.
- ALUC review for any proposed object taller than 35 feet.
- Open land characteristics provided on at least 30% of the land within this zone.

"Zone B2," policies include the following.

- An average intensity of no more than 50 people per gross acre on the site at any time.
- A maximum intensity on any single acre of no more than 100 people at any time.
- Aboveground bulk storage of hazardous materials is prohibited with the exception of on-airport storage of aviation fuel or up to 2,000 gallons of nonaviation flammable materials.

- ALUC review for any proposed object taller than 70 feet.
- Open land characteristics provided on at least 20% of the land within this zone.

"Zone C1 and Zone C2," policies include the following.

- An average intensity of no more than 100 people per gross acre on the site at any time.
- A maximum intensity on any single acre of no more than 300 people at any time.
- ALUC review for any proposed object taller than 100 feet.
- Open land characteristics provided on at least 10% of the land within this zone.

"Zone D," policies include the following.

- ALUC review for any proposed object taller than 100 feet.

The Byron ALUCP outlines different policies based on proximity to the airport. In those areas closest to the airport, "Zone A," policies include the following.

- No new structures are permitted other than aeronautical facilities the location of which is set by FAA Criteria.
- Outdoor activities shall be limited to a maximum of 10 people per gross acre.
- Storage of fuel and other hazardous materials is specifically prohibited.
- Any future nonaviation development or use of property within *Compatibility Zone A* shall meet the criteria for open land.

The BDCP study area contains portions of the airport property and territory in every compatibility zone.

Rio Vista Airport Land Use Compatibility Plan

The Solano County ALUC adopted the Rio Vista Airport Land Use Compatibility Plan (Rio Vista ALUCP) in 1988 for the then-existing airport and for a proposed new airport (Solano County Airport Land Use Commission 1988). The then-existing airport has since closed, and the new airport has been developed and is now in operation on the western edge of Rio Vista, in eastern Solano County. In 2007, the city of Rio Vista, which owns and operates the airport, adopted an updated airport master plan that calls for an expansion of facilities. The Solano County ALUC has begun work on an update to the Rio Vista ALUCP.

The Rio Vista ALUCP designates six compatibility zones in and around the airport in the city of Rio Vista and unincorporated Solano County (Solano County Airport Land Use Commission 1988). Those six zones are detailed below.

Zone A covers the runways and the immediately adjacent clear zone. Zone A policies include the following provisions.

- Assemblages of people, noise-sensitive uses, and structures exceeding Federation Aviation Regulations for height are prohibited.
- Uses that could be hazardous to flight, including uses that are sources of distracting lights, glare, smoke, or electrical interference or that attract birds, are prohibited.
- All structures must be set back at least 50 feet from the extended runway centerline.

- All development requires dedication of an avigation easement.
- Heavy poles, signs and large trees are discouraged.

Zone B applies to the inner approach and departure zone. Policies include the following provisions.

- Noise-sensitive uses, schools, libraries, hospitals and nursing homes are prohibited.
- Uses involving a substantial amount of highly flammable or explosive materials are prohibited.
- Uses hazardous to flight, including uses that are sources of distracting lights, glare, smoke, or electrical interference or that attract birds, are prohibited.
- All structures should be set back as far as possible from the extended runway centerline.
- Residences and office buildings must reduce outside noise by 25 dB.
- All development requires dedication of an avigation easement.

Zone C applies to the outer approach and departure zones and areas adjacent to the runway. Policies include the following provisions.

- Schools, libraries, hospitals, nursing homes, and noise-sensitive outdoor activities are prohibited.
- Uses hazardous to flight, including uses that are sources of distracting lights, glare, smoke, or electrical interference or that attract birds, are prohibited.
- All development requires dedication of an avigation easement.

Zone D covers the extended approach and departure zone. Policies include the following provisions.

- Noise-sensitive outdoor activities are prohibited.
- Uses hazardous to flight, including uses that are sources of distracting lights, glare, smoke, or electrical interference or that attract birds, are prohibited.
- Development requires dedication of an overflight easement.
- Residential development of more than 4 units per acre, schools, libraries, hospitals, nursing homes and large shopping malls are discouraged.

Zone E applies to areas adjacent to the runway or final approach. Zone E policies include provisions listed below.

- Highly noise-sensitive outdoor activities are prohibited.
- Uses hazardous to flight, including uses that are sources of distracting lights, glare, smoke, or electrical interference or that attract birds, are prohibited.
- Development requires dedication of an overflight easement.

Zone F covers the airport environs and has few land use restrictions other than a requirement for dedication of an overflight easement.

Rio Vista Airport and portions or all of the territory within the six compatibility zones lie within the study area.

Sacramento International Airport Comprehensive Land Use Plan

SACOG adopted the Sacramento International Airport Comprehensive Land Use Plan (Sacramento International CLUP) in 1984 and most recently amended the document in 1994. The Sacramento International CLUP designates an Airport Height Restriction Area that protects navigable airspace, an Airport Noise Restriction Area that minimizes the number of people exposed to aircraft noise, and an Airport Safety Restriction Area, which is further divided into a Clear Zone immediately adjacent to the runways, an Approach/Departure Zone that extends for 7,500 feet beyond the ends of runways, and an Overflight Zone that coincides with the normal air traffic pattern (Sacramento Area Council of Governments 1984).

Some of the Yolo Bypass portion of the study area lies within the Overflight Zone, and the study area boundary is approximately 1 mile from the Approach/Departure Zone.

The Sacramento International CLUP calls for the permanent agricultural zoning of the Yolo Bypass to remain in place, and recommends that areas west of the airport and south of the Sacramento River to be reserved for agricultural or appropriate recreational uses. These areas could include portions of the study area.

The Sacramento International CLUP finds the uses listed below to be incompatible with the Clear Zone and Approach/Departure Zone.

- Any use that would direct distracting lights at an aircraft.
- Any use that would cause sunlight to reflect toward a climbing or landing aircraft.
- Any use that would generate smoke, attract large concentrations of birds, or affect safe aircraft navigation.
- Any use that could generate electrical interference that could deter aircraft or airport instrumentation.
- Hazardous installations such as aboveground oil, gas or chemical storage, except facilities for noncommercial, private domestic or private agricultural use.

The Sacramento International CLUP deems nearly all development other than limited agricultural uses to be incompatible with the Clear Zone. Among uses considered compatible with the Approach/Departure Zone are roads, highways and rail lines; parking lots; open space and natural areas; natural water areas; and agricultural activities. Open space and natural areas, and natural water areas are considered incompatible if they result in concentrations of more than 25 people per acre, the aboveground storage of flammable or explosive material, a water area that may cause ground fog, a bird hazard, or high-intensity uses such as ballfields or picnic pavilions.

Most land uses are considered compatible with the Overflight Zone, unless they involve water areas that could generate ground fog or result in a bird hazard, or attract concentrations of people.

San Joaquin County Airport Land Use Compatibility Plan

The San Joaquin County Airport Land Use Compatibility Plan (San Joaquin ALUCP) serves as the compatibility plan for five airports in San Joaquin County, three of which lie within the study area or have planning compatibility areas within the study area: Kingdon Executive Airport, New Jerusalem Airport, and Tracy Municipal Airport. The San Joaquin ALCUP also addresses the Byron Airport, for

which the Contra Costa County ALUC has adopted an LUCP. The San Joaquin Council of Governments, which serves as the county's ALUC, adopted the San Joaquin ALUCP in 2009.

The plan designates a total of eight compatibility zones at and around each airport: Runway Protection Zone, Inner Approach/Departure Zone, Inner Turning Zone, Outer Approach/Departure Zone, Sideline Safety Zone, Airport Property, Traffic Pattern Zone, and Airport Influence Area (Coffman Associates 2009). The compatibility zones have a descending level of land use restriction, with Runway Protection Zone prohibiting all development and the Airport Property, Traffic Pattern Zone and Airport Influence Area placing few limitations on development.

The study area includes territory within the Traffic Pattern Zone and Airport Influence Area of Kingdon Executive Airport, a privately owned facility between the cities of Lodi and Stockton. These two compatibility zones prohibit hazards to flight, such as tall objects, visual and electronic interference with aircraft operations, and land use development that may increase the attraction of birds.

The study area includes territory within the Airport Influence Area of New Jerusalem Airport, which the city of Tracy owns and operates. The Airport Influence Area prohibits hazards to flight, such as tall objects, visual and electronic interference with aircraft operations, and land use development that may increase the attraction of birds.

The study area includes territory within the Runway Protection Zone, Inner Approach/ Departure Zone, Outer Approach/Departure Zone, Traffic Pattern Zone and Airport Influence Area of Tracy Municipal Airport, which the city of Tracy owns and operates. The Runway Protection Zone prohibits essentially all development, while the Inner Approach/Departure Zone prohibits most development, including hazards to flight and waterways that create a bird hazard. The Outer Approach/Departure Zone prohibits buildings taller than 3 stories, highly noise-sensitive outdoor nonresidential uses and certain types of noise-sensitive development. The Traffic Pattern Zone and Airport Influence Area prohibit hazards to flight.

Travis Air Force Base Land Use Compatibility Plan

The Solano County ALUC adopted the Travis Air Force Base Land Use Compatibility Plan (Travis LUCP) in 2002. The Travis LUCP sets forth land use compatibility policies applicable to future development in the vicinity of the base (Shutt Moen Associates 2002). The policies are designed to ensure that future land uses surrounding the base will be compatible with the foreseeable, ultimate aircraft activity at the base.

The Travis LUCP divides territory on and around the base into five zones, which are detailed below. There is also a height review overlay zone that applies to certain hilly areas in the vicinity of the base. The Travis LUCP applies to land in the incorporated cities of Fairfield, Suisun City, Vacaville and Dixon, as well as unincorporated Solano County. The Travis LUCP area also extends into small pieces of unincorporated Napa and Yolo counties, over which the Solano County ALUC has no jurisdiction.

Zone A of the Travis LUCP applies to the runway primary surface and the immediately adjacent clear zone. Zone A contains the strictest policies for buildings, objects and land uses, including these development provisions.

- All structures except aeronautical facilities with locations set by U.S. Department of Defense criteria are prohibited.

- All assemblages of people are prohibited.
- Objects exceeding Federation Aviation Regulations height criteria are prohibited.
- Aboveground bulk storage of hazard materials is prohibited.
- Hazards to flight, including land development that may attract birds, are prohibited.
- All development must include an avigation easement dedication.

Zone B1 comprises the Accidental Potential Zone 1 as defined by the Air Force. These areas lie within 7,500 feet of the runway ends and are subject to potential noise levels in excess of 80 decibel (dB) Community Noise Equivalent Level (CNEL). Zone B1 policies include the following development provisions.

- Aboveground bulk storage of hazardous materials is prohibited.
- Hazards to flight, including land development that may attract birds, are prohibited.
- Structures must be located a maximum distance away from the extended runway centerline.
- Buildings with noise-sensitive uses must reduce outside noise by 40 dB.
- Airspace review is required for objects more than 35 feet tall.
- All development must include an avigation easement dedication.

Zone B2 is comparable to Accident Potential Zone II as defined by the Air Force, expanded to encompass approach and department flight tracks not aligned with the runway. There is a high risk of noise levels in the 70-to-80 dB CNEL range. Zone B2 policies include the following development provisions.

- Aboveground bulk storage of hazardous materials is prohibited.
- Hazards to flight, including land development that may attract birds, is prohibited.
- Residences and buildings with noise-sensitive uses must reduce outside noise by 35 dB.
- Airspace review is required for objects more than 50 feet tall.
- All development must include an avigation easement dedication.

Zone C encompasses locations exposed to potential noise in excess of 60 dB CNEL, together with areas occasionally affected by concentrated numbers of low-altitude (below 3,000 feet mean sea level) aircraft overflights. Developed residential areas within existing city limits are excluded. Zone C policies include the following development provisions.

- Land divisions are limited to current zoning designations.
- Hazards to flight, including land development that may attract birds, is prohibited.
- Residences and buildings with noise-sensitive uses must reduce outside noise by 20 dB.
- A deed notice is required.
- Airspace review is required for objects taller than 100 feet.

Zone D covers all locations beneath any of the Travis Air Force Base airspace protection surfaces delineated under Federal Aviation Regulations. Zone D prohibits hazards to flight, including land development that may attract birds, and requires review for objects more than 200 feet tall.

The study area contains territory within Zones B1, B2, C, and D.

13.2.3.4 County General Plans

California Government Code Section 65300 *et seq*. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. It may also include other elements, including agriculture. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. Finally, although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

This section identifies relevant land use designations, goals, objectives, and policies related to land use in adopted local general plans of the counties within the study area: Alameda, Contra Costa, Sacramento, San Joaquin, Solano, Sutter, and Yolo. These counties have incorporated policies developed by DPC under the Delta Protection Act into their general plans and zoning codes, which enables implementation of the *Land Use and Resource Management Plan for the Primary Zone of the Delta* at the county level. The Primary Zone lands generally are designated for agriculture or special Delta resources in their respective general plans. The zoning codes allow a variety of uses in the Primary Zone: agriculture and agriculturally oriented uses; outdoor recreation; wildlife habitat; public facilities; and limited areas for commercial, industrial, and rural residential development. The parcel sizes specified in the general plans and zoning codes range from 5 to 160 acres, with most of the Primary Zone in the 20- to 80-acre minimum parcel sizes. General plan policies relevant to specific resource areas (e.g., aesthetics, cultural resources, minerals, visual resources, transportation) are discussed in the chapters of this EIR/EIS corresponding to those resources.

Alameda County

East County Area Plan

Land use planning in the eastern portion of Alameda County is governed by the *East County Area Plan* (ECAP), which was adopted as part of the general plan by the County in May 1994. The ECAP governs land uses in the county over an area that generally extends eastward from the hilly region through the middle of the county. In November 2000, Alameda County approved the Save Agriculture and Open Space Lands Initiative (Measure D; effective date, December 22, 2000). The initiative amended portions of the county general plan, including the ECAP. The current general plan incorporates the revisions called for by the initiative (Alameda County 2000).

The portion of Alameda County potentially affected by the project is designated primarily as Large Parcel Agriculture and Major Public. The Large Parcel Agriculture designation is intended mainly for low-intensity agriculture and grazing, and related uses while the Major Public designation provides for government-owned regional and subregional facilities such as hospitals, jails, colleges, civic centers, and similar and compatible uses. Designations covering smaller areas of the study area are for commercial and residential uses. Among the ECAP policies that could be implicated by the BDCP are these:

- **Policy 52:** The County shall preserve open space areas for the protection of public health and safety, provision of recreational opportunities, production of natural resources (e.g., agriculture, windpower, and mineral extraction), protection of sensitive viewsheds, preservation of biological resources, and the physical separation between neighboring communities.
- **Policy 53:** The County shall preserve a continuous band of open space consisting of a variety of plant communities and wildlife habitats to provide comprehensive, rather than piecemeal, habitat conservation for all of East County. This open space should, as much as possible, be outside of the Urban Growth Boundary and contiguous to large open space areas of Contra Costa, Santa Clara, and San Joaquin Counties.
- **Policy 71:** The County shall conserve prime soils (Class I and Class II, as defined by the USDA Soil Conservation Service Land Capability Classification) and Farmland of Statewide Importance and Unique Farmland (as defined by the California Department of Conservation Farmland Mapping and Monitoring Program) outside the Urban Growth Boundary.
- **Policy 73:** The County shall require buffers between those areas designated for agricultural use and new non-agricultural uses within agricultural areas or abutting parcels. The size, configuration and design of buffers shall be determined based on the characteristics of the project site and the intensity of the adjacent agricultural uses, and if applicable, the anticipated timing of future urbanization of adjacent agricultural land where such agricultural land is included in a phased growth plan. The buffer shall be located on the parcel for which a permit is sought and shall provide for the protection of the maximum amount of arable, pasture, and grazing land feasible.
- **Policy 74:** The County shall require that, where conflicts between a new use and existing use are anticipated, the burden of mitigating the conflicts be the responsibility of the new use.
- **Policy 89:** The County shall retain rangeland in large, contiguous blocks of sufficient size to enable commercially viable grazing.
- **Policy 92:** The County shall encourage the retention of existing large parcels of greater than 320 acres in remote areas designated "Large Parcel Agriculture" or "Resource Management," where the parcels are not well served by roads, infrastructure, and services.

Contra Costa County

Contra Costa County General Plan

A comprehensive update to the *Contra Costa County General Plan 2005–2020* was adopted on January 18, 2005, to guide future growth, development, and resource conservation through 2020 (Contra Costa County 2005). Amendments to the general plan occurred in 1996 and 2005 to reflect changes to the land use map and the incorporation of the city of Oakley, and the Housing Element was updated in 2009 (Contra Costa County 2010).

The primary land use designations and allowed uses associated with each in the portion of Contra Costa County potentially affected by the action alternatives are listed below.

- **Agriculture Core:** This designation applies to and attempts to protect lands considered the most suitable for raising a wide variety of crops from conversion to non-agricultural uses.
- **Agricultural Lands:** This designation applies to lands not suitable for raising as wide a range of crops as those designated as AC. These lands are commonly used for grazing or raising dry

grains. This designation attempts to protect land capable of producing food, fiber, or plant material but does not exclude conversion to other non-urban uses.

- **Public/Semi-Public:** This designation applies to publicly owned facilities (e.g., libraries, fire stations, schools), transportation corridors, and public and privately owned utility corridors. It prohibits construction of private residences or private commercial uses.
- **Delta Recreation and Resources:** The primary uses allowed in the Delta Recreation and Resources designation are those agricultural production and processing activities allowed in the Agricultural Lands designation. Additional uses that may be allowed through the issuance of a land use permit include: marinas, shooting ranges, duck and other hunting clubs, campgrounds, and other outdoor recreation complexes. Conditional uses allowed in the Delta Recreation and Resources designation are limited to those low- to medium-intensity establishments that do not rely on urban levels of service or infrastructure, i.e., a public water or sewer system, and which will not draw large concentrations of people to flood-prone areas.
- **Open Space:** This designation applies to open lands which are not designated as Public/Semi-Public, Watershed, or Parks and Recreation, and includes wetlands, tidelands, other ecological resources, and geologic hazards. Allowed uses in this area include resource management, recreation, or establishment of safety zones. The only permanent structures allowed must be oriented toward recreation or resource conservation or a single-family residence on an existing legally established lot.
- **Off-Island Bonus Area:** A bonus density is identified in the off-island area of Bethel Island planning area east of Jersey Island Road. The base dwelling of this area is 1 unit per 5 acres. The density shall be increased through a bonus program if the applicant participates in the Residential Projects program or purchases development rights for land with an Agricultural Land designation.
- **Commercial:** This designation allows a broad range of commercial uses compatible with small-scale communities and along thoroughfares such as retail, personal services, and limited office and financial uses.
- **Single-Family Residential – Very Low:** This designation allows a maximum density of 0.9 detached single family dwelling units per acre and accessory structures incidental to the primary use. Activities and other uses allowed in this area are those consistent with a rural lifestyle including keeping a small number of livestock, childcare facilities, and churches.
- **Single-Family Residential – Low:** This designation allows the same land uses as the Single-Family Residential – Very Low designation but the maximum density allowed is 1.0–2.9 dwelling units per acre.
- **Single-Family Residential – Medium:** This designation allows the same land uses as the Single-Family Residential – Very Low and Low designations but the maximum density allowed is 3.0–4.9 dwelling units per acre.
- **Single-Family Residential – High:** This designation allows the same land uses as the Single-Family Residential – Very Low, Low, and Medium designations but the maximum density allowed is 5.0–7.2 dwelling units per acre with attached single family dwelling units allowed in some specific areas.
- **Multiple-Family Residential – Low:** This designation allows attached single- and multiple-family residences up to a maximum density of 7.3–11.9 dwelling units per acre. Land uses such

as mobile home parks and accessory structures auxiliary to the primary land use are allowed in this area as well as secondary uses such as churches, home occupations, and childcare facilities when they do not conflict with other uses.

- **Multiple-Family Residential – Medium:** This designation allows the same land uses as the Multiple-Family Residential – Low designation but the maximum density allowed is 12.0–21.9 dwelling units per acre.
- **Multiple-Family Residential – High:** This designation allows the same land uses as the Multiple-Family Residential – Low and Medium designations but the maximum density allowed is 22.0–29.9 dwelling units per acre.

The General Plan also contains a number of goals and policies that relate to the BDCP, many of which are listed below.

- **Goal 3-G:** To discourage development on vacant rural lands outside of planned urban areas which is not related to agriculture, mineral extraction, wind energy or other appropriate rural uses.
- **Policy 3-12:** Preservation and buffering of agricultural land should be encouraged as it is critical to maintaining a healthy and competitive agricultural economy and assuring a balance of land uses. Preservation and conservation of open space, wetlands, parks, hillsides and ridgelines should be encouraged as it is crucial to preserve the continued availability of unique habitats for wildlife and plants, to protect unique scenery and provide a wide range of recreational opportunities for County residents.
- **Policy 3-46:** Water-oriented recreation uses shall be permitted in East County provided that such development is compatible with the Delta's unique ecology.
- **Policy 3-54:** All public and private management and development activities within the Primary Zone of the Delta shall be consistent with the goals, policies and provisions of the "Land Use and Resource Management Plan for the Primary zone of the Delta as adopted and as may be amended by the Delta Protection Commission.
- **Policy 3-64:** To retain the characteristics of Bethel Island that make it a unique place in the Delta with its own separate identity, development shall be limited to a low overall density, and open space buffers shall be required. In addition, agricultural, open space, and wetland areas, along with rare plant communities, shall be preserved and protected.
- **Policy 8-2:** Areas that are highly suited to prime agricultural production shall be protected and preserved for agriculture and standards for protecting the viability of agricultural land shall be established.
- **Policy 8-9:** Areas determined to contain significant ecological resources, particularly those containing endangered species, shall be maintained in their natural state and carefully regulated to the maximum legal extent. Acquisition of the most ecologically sensitive properties within the County by appropriate public agencies shall be encouraged.
- **Policy 8-10:** Any development located or proposed within significant ecological resource areas shall ensure that the resource is protected.
- **Policy 8-11:** The County shall utilize performance criteria and standards which seek to regulate uses in and adjacent to significant ecological resource areas.

- **Policy 8-13:** The critical ecological and scenic characteristics of rangelands, woodlands, and wildlands shall be recognized and protected.
- **Policy 8-15:** Existing vegetation, both native and non-native, and wildlife habitat areas shall be retained in the major open space areas sufficient for the maintenance of a healthy balance of wildlife populations.
- **Policy 8-16:** Native and/or sport fisheries shall be preserved and re-established in the streams within the County wherever possible.
- **Policy 8-17:** The ecological value of wetland areas, especially the salt marshes and tidelands of the bay and delta, shall be recognized. Existing wetlands in the County shall be identified and regulated. Restoration of degraded wetland areas shall be encouraged and supported whenever possible.
- **Policy 8-19:** The County shall actively oppose any and all efforts to construct a peripheral canal or any other water diversion system that reduces Delta water flows unless and until it can be conclusively demonstrated that such a system would, in fact, preserve and enhance water quality and fisheries of the San Francisco Bay-Delta estuary system.
- **Policy 8-29:** Large contiguous areas of the County should be encouraged to remain in agricultural production, as long as economically viable.
- **Policy 8-33:** The County shall encourage agriculture to continue operating adjacent to developing urban areas.
- **Policy 8-84:** Riparian resources in the Delta and along the shoreline shall be protected and enhanced.
- **Policy 8-91:** Grading, filing and construction activity near watercourses shall be conducted in such a manner as to minimize impacts from increased runoff, erosion, sedimentation, biochemical degradation, or thermal pollution.
- **Policy 8-93:** Particular care shall be exercised by development proposals to preserve and enhance riparian corridors along creeks which connect to the freshwater marsh segments of coastal areas in the North Central and East County areas.
- **Policy 9-20:** New power lines shall be located parallel to existing lines in order to minimize their visual impact.
- **Policy 9-44:** As a unique resource of State-wide importance, the Delta shall be developed for recreation use in accordance with the State environmental goals and policies. The recreational value of the Delta shall be protected and enhanced.
- **Policy 9-46:** Public trail facilities shall be integrated into the design of flood control facilities and other public works whenever possible.

Sacramento County

Sacramento County General Plan

The *Sacramento County General Plan* update was adopted on November 9, 2011. The plan seeks to provide a sustainable growth management program for the unincorporated territory through 2030.

The portion of Sacramento County potentially affected by the action alternatives is largely agricultural. The small, unincorporated communities of Courtland, Hood, Locke and Walnut Grove are located in the vicinity of some action alternatives. Nearly all of the industrial, commercial and residential land use designations described below are located in these communities.

The primary land use designations and allowed uses associated with each in the portion of Sacramento County potentially affected by the action alternatives are listed below, as are some of the general plan policies considered applicable to the BDCP.

Agricultural Cropland and Resource Conservation Area (combining designation): The Agricultural Cropland designation represents agricultural lands most suitable for intensive agricultural activities, including row crops, tree crops, irrigated grains, and dairies. Residential uses at one single-family dwelling unit per 40 acres are also considered suitable in this area. The Resource Conservation Area combining designation identifies areas with special resource management needs. The designation targets certain natural resources as being important while recognizing the validity of the underlying land use designation. The intent is to develop programs and incentives to assist land owners with resource protection and enhancement. Compliance with the Resource Conservation designation relies on the voluntary support of landowners who seek cooperative conservation agreements with the County.

The goal of the Agriculture Element is to protect the county's agricultural lands and maintain the productivity of these lands. This element includes an "agri-tourism" component, which promotes continued economic viability of agricultural activities throughout the county. Agricultural Element policies that relate to the BDCP are listed below (Sacramento County 2011).

- **Policy AG-5:** Projects resulting in the conversion of more than fifty (50) acres of farmland shall be mitigated within Sacramento County, except as specified in the paragraph below, based on a 1:1 ratio, for the loss of the following farmland categories through the specific planning process or individual project entitlement requests to provide in-kind or similar resource value protection (such as easements for agricultural purposes):
    - Prime, statewide importance, unique, local importance and grazing farmlands located out the USB (Urban Services Boundary);
    - Prime, statewide importance, unique, and local importance farmlands located inside the USB.
    - The Board of Supervisors retains the authority to override impacts to Unique, Local, and Grazing farmlands, but not with respect to Prime and Statewide farmlands.
    - However, if that land is also required to provide mitigation pursuant to a Sacramento County endorsed or approved HCP, then the Board of Supervisors may consider the mitigation land provided in accordance with the HCP as meeting the requirements of this section including land outside of Sacramento County.
- **Policy AG-10:** The County shall balance the protection of prime, statewide importance, unique and local importance farmlands and farmlands with intensive agricultural investments with the preservation of natural habitat so that the protection of farmland can also serve to protect habitat.
- **Policy AG-11:** Cooperation shall be encouraged between landowners of prime, statewide importance, unique and local importance farmlands or land with intensive agricultural investments and landowners of natural resource preserves, including mitigation banks,

mitigation sites, and wildlife refuges, so that both habitat preservation and standard farming practices mutually benefit.

- **Policy AG-12:** The County will cooperate with landowners of agriculturally zoned properties to promote the placing of natural preserve/mitigation amenities on land, such as trees and other biota enhancing improvement, by making sure amenities are assets to both the natural preserve/mitigation areas and agriculture practices.
- **Policy AG-14:** Initiate intergovernmental agreements with State and Federal Wildlife management authorities in order to mitigate loss of prime, statewide importance, unique and local importance farmlands or land with intensive agricultural investment due to natural habitat conversion.
- **Policy AG-15:** The County shall pursue opportunities to create mitigation banks, environmental mitigation sites, wildlife refuges, or other natural resource preserves wherein substantial agricultural activities that are compatible with protection of high habitat values continue, but incompatible activities and conversion for development are precluded by conservation easements.
- **Policy AG-17:** The establishment of conservation easements combining preservation of agricultural uses, habitat values, and open space on the same property should be encouraged where feasible.
- **Policy AG-25:** Outside the Urban Service Boundary, encourage landowners to enter into Williamson Act contracts or, as appropriate, to rescind Notices of Nonrenewal. Provide support to keep property in the Williamson Act by allowing agricultural-friendly land use practices that include additional economic incentives, and support replacing existing Williamson Act contracts with amended contracts that include agricultural-friendly land use practices.

Natural Preserve: The purpose of this designation is to identify critical natural habitat for priority resource protection. The designation includes riparian Valley Oak woodland and permanent or seasonal marshes with outstanding wildlife value. Natural Preserve lands are designated on both public and privately owned land. Preserve boundaries do not include intensively farmed areas.

The goal of the Open Space Element is the permanent protection of open space lands through a variety of programs. Open Space Element policies that are considered applicable to the BDCP are listed here.

- **Policy OS-1:** Actively plan to protect, as open space, areas of natural resource value, which may include but are not limited to wetlands preserves, riparian corridors, woodlands, and floodplains associated with riparian drainages.
- **Policy OS-2:** Maintain open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement and sustain ecosystems.

Industrial Intensive: This land use designation allows for manufacturing and related activities including research, processing, warehousing, and supporting commercial uses, the intensive nature of which require urban services. Industrial Intensive areas are located within the urban portion of the county and receive an urban level of public infrastructure and services.

Commercial and Offices: The Commercial and Offices designation provides for a full range of neighborhood, community and regional shopping centers and a variety of business and professional offices. Uses include locally-oriented retail, professional offices, and regional commercial operations.

The location and size of commercial areas is based upon accessibility, historic development patterns, community and neighborhood needs, and minimization of land use conflicts. Ideally, commercial areas are designed to integrate with the community, including the provision for pedestrian amenities.

Medium Density Residential: The Medium Density Residential designation provides for areas of attached units, including apartments and condominiums, along transit corridors and throughout the urban area. This designation establishes urban densities between 13 and 30 dwelling units per acre, resulting in population densities ranging from approximately 32.5 to 73.5 persons per acre. Medium density development includes apartments, condominiums, and group housing. These uses are appropriate near commercial areas, transportation and transit corridors, and employment centers.

Low Density Residential: This designation provides for areas of predominantly single family housing with some attached housing units. It allows urban densities between 1 and 12 dwelling units per acre, resulting in population densities ranging from approximately 2.5 to 30 persons per acre. Typical low density development includes detached single family homes, duplexes, triplexes, fourplexes, townhouses, lower density condominiums, cluster housing, and mobile home parks.

Agricultural-Residential: This land use designation is designed for rural residential uses including animal husbandry, small-scale agriculture, and other limited agricultural activities. The designation allows between one and ten acres per unit, resulting in a development density of 2.5 to 0.25 persons per acre.

San Joaquin County

San Joaquin County General Plan Goals and Policies

The *San Joaquin County General Plan 2010* was adopted on July 29, 1992. The general plan intends to provide guidance for future growth in a manner that preserves the county's natural and rural assets. Most of the urban growth is directed to existing urban communities.

The study area includes area with land use designations of General Agriculture and Open Space/ Resource Conservation under the San Joaquin County general plan. Those designations are defined as follows:

General Agriculture: This designation applies to areas suitable for agriculture outside areas planned for urban development where the soils are capable of producing a wide variety of crops and/or supporting grazing; parcel sizes are generally large enough to support commercial agricultural activities; and there exists a commitment to commercial agriculture in the form of Williamson Act contracts and/or capital investments. Typical uses include crop production, feed and grain storage and sales, crop spraying, and animal raising and sales.

Open Space/Resource Conservation: The Open Space/Resource Conservation designation provides for areas with significant resources that generally are to remain in open space.

The Resources Element of the plan addresses countywide protection of various natural resources, including open space and agricultural lands. Policies from the Resources Element that are considered relevant to the BDCP are listed below (San Joaquin County 1992).

- **Open Space Policy 3:** Development may be permitted in Resource Conservation Areas only if proposed uses will not have significant impacts on the continued existence or use of the resource.

- **Open Space Policy 4:** Areas with serious development constraints, such as the Delta, should be predominantly maintained as open space.
- **Open Space Policy 5:** Ridgelines and major hilltops shall remain undeveloped.
- **Open Space Policy 6:** The County shall consider waterways, levees, and utility corridors as major elements of the open space network and shall encourage their use for recreation and trails in appropriate areas.
- **Open Space Policy 13:** Development proposals along scenic routes shall not detract from the visual and recreational experience.
- **Agricultural Lands Policy 5:** Agricultural areas shall be used principally for crop production, ranching, and grazing. All agricultural support activities and non-farm uses shall be compatible with agricultural operations and shall satisfy the following criteria:
    - The use requires a location in an agricultural area because of unusual site area requirements, operational characteristics, resource orientation, or because it is providing a service to the surrounding agricultural area;
    - The operational characteristics of the use will not have a detrimental impact on the management or use of surrounding agricultural properties;
    - The use will be sited to minimize any disruption to the surrounding agricultural operations; and
    - The use will not significantly impact transportation facilities, increase air pollution, or increase fuel consumption.

San Joaquin County General Plan Update

San Joaquin County began a comprehensive general plan update in 2008. As of February 2013, the county planning commission had published a white paper outlining the commission's recommended alternative for the plan, which included preservation of agriculture and open space as a key feature (San Joaquin County 2013).

Solano County

Solano County General Plan Goals and Policies

The *Solano County General Plan* was adopted on August 5, 2008. The Agriculture and Resources Elements of the general plan address conservation of agricultural land. The general plan is the guide for both land development and conservation in the unincorporated portions of the county and contains the policy framework necessary to fulfill the community's vision for Solano County in 2030.

The study area incorporates lands designated as Agriculture or Marsh with a Resource Conservation overlay in the southeastern portion of Solano County. The Agriculture designation provides areas for the practice of agriculture as the primary use, including areas that contribute significantly to the local agricultural economy, and allows for secondary uses that support the economic viability of agriculture. The Marsh designation provides for protection of marsh and wetland areas and permits aquatic and wildlife habitat, marsh-oriented recreational uses, agricultural activities compatible with the marsh environment and marsh habitat, educational and scientific research, educational facilities supportive of and compatible with marsh functions, and restoration of historic tidal

wetlands. The Resource Conservation overlay identifies and protects areas of the county with special resource management needs by requiring study of potential effects if development is proposed in these locations and providing mitigation to support urban development in cities (Solano County 2008). An additional area covers the Lambie Industrial Park, designated as a Specific Project Area and dedicated primarily to general industrial uses. The following policies contained in the general plan are relevant to the action alternatives.

Agriculture Element

- **Policy AG.P-4:** Require farmland conversion mitigation for either of the following actions:
  - a general Plan amendment that changes the designation of any land from an agricultural to a nonagricultural use or
  - an application for a development permit that changes the use of land from production agriculture to a nonagricultural use, regardless of the general Plan designation.
- **Policy AG.P-28:** Recognize that agriculture is to be the predominant land use in the Dixon Ridge, Elmira and Maine Prairie, Montezuma Hills, Ryer Island, and Winters regions. These are agricultural areas where preservation efforts should be focused and conflicting land uses avoided.

Resources Element

- **Policy RS.P-1:** Protect and enhance the county's natural habitats and diverse plant and animal communities, particularly occurrences of special-status species, wetlands, sensitive natural communities, and habitat connections.
- **Policy RS.P-2:** Manage the habitat found in natural areas and ensure its ecological health and ability to sustain diverse flora and fauna.
- **Policy RS.P-3:** Focus conservation and protection efforts on high-priority habitat areas depicted in Figure RS-1 of the general plan.
- **Policy RS.P-4:** Together with property owners and federal and state agencies, identify feasible and economically viable methods of protecting and enhancing natural habitats and biological resources.
- **Policy RS.P-5:** Protect and enhance wildlife movement corridors to ensure the health and long-term survival of local animal and plant populations. Preserve contiguous habitat areas to increase habitat value and to lower land management costs.
- **Policy RS.P-6:** Protect oak woodlands and heritage trees and encourage the planting of native tree species in new developments and along road rights-of-way.
- **Policy RS.P-7:** Preserve and enhance the diversity of habitats in marshes, delta to maintain these unique wildlife resources.
- **Policy RS.P-8:** Protect marsh waterways, managed wetlands, tidal marshes, seasonal marshes, and lowland and grasslands because they are critical habitats for marsh-related wildlife and are essential to the integrity of the marshes.
- **Policy RS.P-9:** Encourage restoration of historic marshes to wetland status, either as tidal marshes or managed wetlands. When managed wetlands are no longer used for waterfowl hunting, restore them as tidal marshes.

- **Policy RS.P-10:** The County shall preserve and enhance wherever possible the diversity of wildlife and aquatic habitats found in the Suisun Marsh and surrounding upland areas to maintain these unique wildlife resources.
- **Policy RS.P-11:** The County shall protect its marsh waterways, managed and natural wetlands, tidal marshes, seasonal marshes and lowland grasslands which are critical habitats for marsh related wildlife.
- **Policy RS.P-12:** Existing uses should continue in the upland grasslands and cultivated areas surrounding the critical habitats of the Suisun Marsh in order to protect the Marsh and preserve valuable marsh-related wildlife habitats. Where feasible, the value of the upland grasslands and cultivated lands as habitat for marsh-related wildlife should be enhanced.
- **Policy RS.P-13:** Agriculture within the Primary Management Area of the Suisun Marsh should be limited to activities compatible with, or intended for, the maintenance or improvement of wildlife habitat. These include extensive agricultural uses such as grain production and grazing. Intensive agricultural activities involving removal or persistent plowing of natural vegetation and maintenance of fallow land during part of the year should not be permitted.
- **Policy RS.P-14:** Agricultural uses consistent with protection of the Suisun Marsh, such as grazing and grain production, should be maintained in the Secondary Management Area. In the event such uses become infeasible, other uses compatible with protection of the Marsh should be permitted.
- **Policy RS.P-16:** The County shall ensure that development in the County occurs in a manner which minimizes impacts of earth disturbance, erosion and water pollution.
- **Policy RS.P-17:** The County shall preserve the riparian vegetation along significant County waterways in order to maintain water quality and wildlife habitat values.
- **Policy RS.P-20:** The goals, policies, and provisions of the Land Use and Resource Management Plan for the Primary Zone of the Delta are incorporated by reference. Ensure that all public and private management and development activities within the Primary Zone of the Delta are consistent with the goals, policies and provisions of the Land Use and Resource Management Plan for the Primary Zone of the Delta as adopted and as may be amended by the Delta Protection Commission.
- **Policy RS.P-21:** Preserve and protect the natural resources of the Delta including soils and riparian habitat. Lands managed primarily for wildlife habitat should be managed to provide inter-related habitats.
- **Policy RS.P-23:** Ensure that extension of new utilities and infrastructure facilities, including those that support uses and development outside the Delta, is consistent with the Land Use and Resource Management Plan for the Primary Zone of the Delta. Where construction of new utility and infrastructure facilities is appropriate, the effects of such new construction on the integrity of levees, wildlife, and agriculture activities shall be minimized to the extent feasible.
- **Policy RS.P-24:** Protect the unique character and qualities of the Primary Zone by preserving the cultural heritage and the strong agricultural base.

Sutter County

Sutter County General Plan Goals and Policies

The updated *Sutter County General Plan* became effective on April 28, 2011 (Sutter County 2012). The Agricultural Resources and Environmental Resources elements of the general plan enumerate goals and policies intended to reduce environmental impacts in the county (Sutter County 2010).

The study area covers approximately 160 acres of the southwestern part of Sutter County. This area is designated exclusively for Open Space, a designation intended to identify and permanently protect lands with values for habitat, topography, scenic quality, public safety, or comparable purposes. A number of policies considered relevant to the BDCP are listed below.

Agriculture Element

- **Goal AG 1:** Preserve and protect high quality agricultural lands for long-term agricultural production.
- **Policy AG 1.1:** Agricultural Land Preservation: Preserve and maintain agriculturally designated lands for agricultural use and direct urban/suburban and other nonagricultural related development to the cities, unincorporated rural communities, and other clearly defined and comprehensively planned development areas.
- **Policy AG 1.5:** Agricultural Land Conversion: Discourage the conversion of agricultural land to other uses unless all of the following findings can be made:
    - The net community benefit derived from conversion of the land outweighs the need to protect the land for long-term agricultural use;
    - There are no feasible alternative locations for the proposed use that would appreciably reduce impacts upon agricultural lands; and
    - The use will not have significant adverse effects, or can mitigate such effects, upon existing and future adjacent agricultural lands and operations.
- **Policy AG 1.10:** Transfer of Development Rights: Explore and, if determined feasible, implement programs to permanently preserve agricultural lands through the use of voluntary transfer of development rights to guide development to more suitable areas.
- **Goal AG 3:** Protect the natural resources needed to ensure that agriculture remains an essential and sustainable part of Sutter County's future.
- **Policy AG 3.3:** Water Quality and Quantity: Maintain water resource quality and quantity for the irrigation of productive farmland.
- **Policy AG 3.4:** Water Competition from Urban Uses: Oppose the loss of agricultural water due to competition from urban water consumption both within and outside the County.

Environmental Resources Element

- **Goal ER 1:** Support a comprehensive approach for the conservation, enhancement, and regulation of Sutter County's significant habitat and natural open space resources.
- **Policy ER 1.4:** Interconnected Habitat: Emphasize the preservation, enhancement, and creation of sustainable, interconnected habitat and open space areas that highlight unique resources and integrate educational and recreational opportunities as appropriate.

- **Policy ER 1.6:** Avoidance: Ensure that new development projects avoid, to the extent feasible, significant biological resources (e.g., areas of rare, threatened or endangered species of plants, riparian areas, vernal pools), except where such projects are identified as "Authorized Development" within an adopted Habitat Conservation Plan.
- **Policy ER 1.7:** Mitigation: Mitigate biological and open space effects that cannot be avoided in accordance with an applicable Habitat Conservation Plan and federal, State, and local regulations.
- **Goal ER 2:** Conserve, protect, and enhance Sutter County's significant natural wetland and riparian habitats.
- **Policy ER 2.1:** No Net Loss: Require new development to ensure no net loss of state and federally regulated wetlands, other waters of the United States (including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands), and associated functions and values through a combination of avoidance, restoration, and compensation.
- **Goal ER 3:** Conserve, protect, and enhance Sutter County's varied wildlife and vegetation resources.
- **Policy ER 3.1:** Special-Status Species: Preserve special-status fish, wildlife, and plant species (e.g., rare, threatened or endangered species) and habitats consistent with an applicable Habitat Conservation Plan and federal, State, and local regulations.
- **Policy ER 3.5:** Wildlife Corridors: Preserve and enhance wildlife movement corridors between natural habitat areas to maintain biodiversity and prevent the creation of biological islands. Preserve contiguous habitat areas when possible.
- **Policy ER 3.6:** Natural Vegetation: Preserve important areas of natural vegetation and the ecological integrity of these habitats, where feasible, including but not limited to riparian, vernal pool, marshes, oak woodlands and annual grasslands.
- **Goal ER 4:** Conserve, protect, and enhance Sutter County's unique natural open space lands and resources.
- **Policy ER 4.1:** Preserve Natural Resources: Preserve natural land forms, natural vegetation, and natural resources as open space to the extent feasible.
- **Policy ER 4.3:** River Corridors: Preserve the Sacramento, Feather, and Bear River corridors as important habitat, recreation and open space resources. Support efforts to increase public access and recreational uses along the County's river corridors.
- **Policy ER 4.5:** Minimize New Development Impacts: Require new development to minimize its impacts to open space areas.

Yolo County

Yolo County General Plan Goals and Policies

The *Yolo County General Plan* was adopted on November 10, 2009, and provides for growth and development in the unincorporated area through 2030. The general objective of the general plan is to guide decision making in the unincorporated areas in the county toward the most desirable future possible and to identify efficient urbanization with the preservation of productive farm resources and open space amenities (Yolo County 2009). The general plan contains policies relating to urban

development, including urban communities and the infrastructure necessary to serve them. Other sections of the general plan describe strategies to recognize and preserve areas of open space and natural resources.

The study area includes lands in the southeastern portion of Yolo County designated as Agriculture with a Delta Protection overlay. The Agriculture designation includes all agriculture and agricultural support land uses including worker housing and incidental wildlife habitat areas. Within the area encompassed by the Delta Protection overlay, land uses consistent with the base designation and the DPC's Land Use and Resource Management Plan are allowed.

The Land Use and Community Character Element, the Agriculture and Economic Development Element, and the Conservation and Open Space Element of the general plan include policies applicable to the BDCP. The Land Use and Community Character Element seeks to preserve and foster the rural character of the county and establishes goals for regional collaboration and equity, green building standards, sustainable community design, and net community benefits from new growth. The Agriculture and Economic Development Element seeks to support, sustain, reinvent, and diversify the agricultural economy. The Conservation and Open Space Element focuses on balanced management of the county's multiple natural and cultural resources, seeks to establish a connected and accessible open space system with communities separated by agriculture and natural spaces linked by a network of trails, and encourages open spaces that complement other land areas in a way that benefits both natural resources and the community (Yolo County 2009). The following policies contained in the general plan are relevant to the action alternatives.

Land Use and Community Character Element

- **Policy LU-2.3:** Prohibit the division of land in an agricultural area if the division is for non-agricultural purposes and/or if the result of the division will be parcels that are infeasible for farming. Projects related to clustering and/or transfers of development rights are considered to be compatible with agriculture.
- **Policy LU-3.5:** Avoid or minimize conflicts and/or incompatibilities between land uses.
- **Policy LU-4.1:** Recognize the unique land use constraints and interests of the Delta area.

Agriculture and Economic Development Element

- **Policy AG-1.3:** Prohibit the division of agricultural land for non-agricultural uses.
- **Policy AG-1.4:** Prohibit land use activities that are not compatible within agriculturally designated areas.
- **Policy AG-1.5:** Strongly discourage the conversion of agricultural land for other uses. No lands shall be considered for redesignation from Agricultural or Open Space to another land use designation unless all of the following findings can be made:
    - There is a public need or net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use.
    - There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.
    - The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding lands designated Agriculture.

- **Policy AG-1.6:** Continue to mitigate at a ratio of no less than 1:1 the conversion of farmland and/or the conversion of land designated or zoned for agriculture, to other uses.
- **Policy AG-2.9:** Support the use of effective mechanisms to protect farmers potentially impacted by adjoining habitat enhancement programs, such as "safe harbor" programs and providing buffers within the habitat area.
- **Policy AG-2.10:** Encourage habitat protection and management that does not preclude or unreasonably restrict on-site agricultural production.
- **Policy AG-6.1:** Continue to promote agriculture as the primary land use in the portion of Yolo County that lies within the Primary Zone of the Sacramento-San Joaquin Delta.
- **Policy AG-6.3:** Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable agricultural policies of the Land Use and Resource Management Plan of the Delta Protection Commission.

Conservation and Open Space

- **Policy CO-1.17:** Out-of-county mitigation easements in Yolo County for the loss of open space, agriculture, or habitat in other jurisdictions, and flood easements in Yolo County are not acceptable unless the project meets all of the following criteria.
    - Prior notification to Yolo County.
    - Consistency with the goals and policies of the Yolo County General Plan, particularly as related to planned growth, infrastructure, and agricultural districts.
    - Secured water rights and infrastructure to economically maintain the proposed mitigation use.
    - Requirements that existing agricultural operations continue to be farmed for commercial gain.
    - Prohibitions on residential use.
    - Mandatory wildlife-friendly strategies and practices.
    - Compensation to Yolo County for all lost direct and indirect revenue.
    - Accommodation of recreational uses, such as hunting, fishing, birdwatching, hiking, etc.

    Where proposed easements meet the above criteria, no further approval is needed. Where one or more criteria are not met, discretionary approval is required.

Yolo County Habitat Project Moratorium

In October 2010, the Yolo County Board of Supervisors enacted a 45-day moratorium on habitat mitigation projects within the county. In November 2010, that moratorium was extended to a full 2 years (Sacramento Bee 2010). The halt on projects intended to mitigate habitat damage will allow the County to develop an ordinance that establishes its authority over such projects. Such an ordinance is intended to protect the County's economic and environmental interests and control the conversion of revenue-generating agricultural land to habitat restoration and mitigation lands. While DWR and federal agencies are not subject to this moratorium, as described in Section 13.2.3, this ordinance could apply to other agencies' adjoining HCPs. Further discussion of consistency with

HCPs is located in Chapter 12, *Terrestrial Resources,* Section 12.3.3.18, *Effects on Other Conservation Plans*.

13.2.3.5 City General Plans

A total of 17 incorporated cities lie partially or completely within the study area: Antioch, Benicia, Brentwood, Elk Grove, Fairfield, Isleton, Lathrop, Lodi, Manteca, Oakley, Pittsburg, Rio Vista, Sacramento, Stockton, Suisun City, Tracy, and West Sacramento. Each of these cities has adopted a general plan, outlining a range of land use designations, goals, and policies including those designed to reduce impacts upon the environment.

City of Antioch

Antioch updated its general plan in 2003 (City of Antioch 2003). The Resource Management element of Antioch's general plan identifies goals, objectives, policies and designations that seek to avoid environmental impacts. The general resource management goal is to conserve and enhance the unique natural beauty of Antioch's physical setting, and control the expansion of urban development by protecting open space where it is important to preserve natural environmental processes and areas of cultural and historical value. From this goal, objectives and policies specific to open space, biological resources, open space transitions and buffers, air quality, water resources, and cultural resources are identified. The Environmental Hazards element outlines regulations specific to reducing effects of seismicity, floods, fires, noise, and hazardous materials. Approximately the northern half of Antioch lies within the study area. This area is covered by predominantly urban land use designations; however, areas dedicated to Open Space, which are intended, in part, to protect sensitive environmental resources, are located throughout the city. Additionally, the Dow Wetlands Preserve is located adjacent to the San Joaquin River.

City of Benicia

The City of Benicia General Plan was adopted on June 15, 1999 (City of Benicia 1999). The Open Space and Conservation of Resources element of Benicia's general plan lists policies and designations with the purpose of avoiding environmental impacts. The community identity element includes policies and programs related to historical, cultural and visual resources, as well as measures designed to protect open space and natural resources, including the protection of agricultural uses. Goals, policies, and programs designed specifically for the protection of biotic, water, mineral, and energy resources are also identified. The Community Health and Safety element incorporates measures designed to avoid hazards related to geology and seismicity, flood, fire, utilities, hazardous materials, noise, and those related to water and air quality. Only about 125 acres—bordering Suisun Bay in the southeastern part of the city—lies within the study area. This area is covered by the Waterfront Industrial designation.

City of Brentwood

The City of Brentwood's General Plan, 2001–2021, includes a Resources and Hazards section that identifies land use policies and designations intended to reduce environmental impacts (City of Brentwood 2011). Designations introduced within the Plan's Land Use Element include Agricultural Conservation, Park/Recreation, and Open Space. The Conservation/Open Space Element lists goals and policies specific to the preservation of agricultural lands, historic and cultural resources, water resources, natural resources, and open space. The Safety and Noise Elements include measures to

reduce the effects of hazards within the city. The study area contains a majority of Brentwood's land area.

City of Elk Grove

The City of Elk Grove's general plan was adopted on November 19, 2003 (City of Elk Grove 2003). Plan elements relating to conservation and air quality; historic resources; noise; parks, trails, and open space; and safety identify policies and designations that seek to avoid or mitigate environmental impacts. Designations related to the avoidance environmental effects include Public and Private Open Space/Recreation and Rural and General Agriculture. A roughly 200-acre strip of land between Interstate 5 and the eastern border of the study area represents the portion of the city falling within the study area.

City of Fairfield

The City of Fairfield comprehensively amended its general plan in June 2002 and has updated several elements since that time. The overarching goal of the Open Space, Conservation, and Recreation Element is to designate, preserve, and protect agricultural, ecological, recreational and scenic lands in Fairfield and surrounding areas for now and future generations. This section includes objectives and policies intended to preserve agricultural lands, protect sensitive resources, preserve and protect natural resources, and preserve cultural and historic resources. The Agriculture Element is geared specifically toward supporting agricultural resources and activities in the city (City of Fairfield 2002). The Health and Safety Element addresses topics including the minimization of effects from seismic and geologic hazards, as well as those related to floods, fires, aircraft, hazardous materials, and noise. Relevant land designations include Intensive Agriculture, Extensive Agriculture, Recreation, Conservation, and a Resource Conservation Overlay (City of Fairfield 2004). About 360 acres of the city fall within study area borders in the northwestern part of the Suisun Marsh.

City of Isleton

The City of Isleton is located entirely within the study area. The city is approximately 0.5 square mile (320 acres) and is located along the Sacramento River and SR 160 on Brannan Island. It is located at the southern end of Sacramento County and is generally in the middle of the Delta. Land uses in Isleton are primarily low-density residential and commercial, with some smaller areas of industrial uses. The City of Isleton includes designations for Low Density Residential; Low Density Residential Reserve; Medium Density Residential; High Density Residential; Central Commercial District; Mixed Use; Industrial; and Public, Semi-Public, and Private Facilities.

City of Lathrop

The *Comprehensive General Plan for the City of Lathrop* was adopted December 17, 1991, and was last amended November 9, 2004 (City of Lathrop 2004). The Resource Management Element of Lathrop's general plan sets forth policies establishing open space for the protection of agricultural resources; mineral resources; vegetation, fish, and wildlife habitat; and archaeological and cultural resources. The Community Development and Hazard Management Elements cover policies related to reducing the effects of hazards including seismic risks, fires, floods, and noise. Designations, goals, and policies intended to reduce environmental impacts vary by plan sub-area and include

Resource/Conservation/Open Space, and Open Space designations. The majority of Lathrop's land area lies within the study area.

City of Lodi

The City of Lodi's general plan was adopted on April 7, 2010. Plan elements focusing on Conservation and Parks, Recreation, and Open Space identify policies and designations that aim to avoid or mitigate environmental impacts (City of Lodi 2010). These include consideration of agricultural and soil resources, biological resources, cultural resources, historic resources, water quality, energy, and air quality. Other elements specific to the themes of Safety and Noise identify policies with respect to flooding, hazardous materials, seismic and geologic hazards, fires, and noise. A roughly 1,000-acre section of city-owned land lies within the study area. This area is not contiguous with the rest of the city and is dedicated strictly to public and quasi-public uses (specifically, the Lodi wastewater treatment facility).

City of Manteca

The City of Manteca adopted its general plan on October 6, 2003 (with updates to the Housing and Circulation Elements in 2010 and 2011, respectively). The Resource Conservation Element of Manteca's general plan identifies policies with the purpose of avoiding effects on the environment and resources which include water, energy, soils, minerals, agriculture, biological resources, and cultural resources (City of Manteca 2003). The Noise and Safety elements also contain policies designed to avoid environmental effects. Relevant land use designations identified in the plan include Agriculture and Open Space. The southwestern part of the city lies within the study area.

City of Oakley

The *City of Oakley 2020 General Plan* was adopted December 16, 2002, and amended January 26, 2010 (City of Oakley 2010). The Open Space and Conservation Element identifies policies and designations that aim to avoid environmental impacts with respect to agricultural, air quality, biological, cultural, historic, open space, and scenic resources. The Health and Safety and Noise Elements also address the reduction of environmental effects. Designations related to environmental mitigation include the Agriculture Limited and Agriculture designations, whose purpose is to accommodate agricultural activities, and Delta Recreation and Parks and Recreation, which are designed to protect public access to recreational opportunities. Nearly the entire city lies within the study area.

City of Pittsburg

The Pittsburg General Plan, adopted in 2001 and amended in 2010, incorporates a number of policies and land use designations designed to avoid environmental impacts, including those relating to biological resources and habitat, drainage and erosion, water quality, air quality, and historical resources conservation (City of Pittsburg 2004). The Health and Safety and Noise Elements also incorporate policies that mitigate risks related to other potential environmental effects. Open Space and Park land use designations also support these policies. The majority of the city lies within the study area, including that portion bordering the eastern entrance to Suisun Bay.

City of Rio Vista

The City of Rio Vista's general plan was adopted on July 18, 2002 (City of Rio Vista 2002). The plan's Resource Conservation and Management sets out policies that aim to preserve and protect open space areas, sensitive local resource areas, agricultural lands, the Sacramento River Delta, soils, and biological resources. Other policies are designed to protect water quality, preserve air quality, preserve historical resources, and protect visual and scenic resources. The city also identifies Agricultural and Open Space land use designations. Only land in the northwest portion of the city lies within the study area.

City of Sacramento

The Sacramento City Council adopted the city's general plan on March 3, 2009. The Land Use and Urban Design Element of the city's plan introduces land designations, goals, and policies intended to reduce environmental impacts. These include Open Space and Parks and Recreation designations, goals, and policies outlining the preservation of such areas for their environmental and community values. The Environmental Resources Element incorporates policies for protecting water, biological species and habitat, urban forest, agricultural land, mineral resources, air, and scenic resources. The Environmental Constraints Element incorporates policies related to flooding, noise, and seismic and geologic hazards while the Public Health and Safety Element addresses risks related to fires and hazardous materials (City of Sacramento 2009). The southwestern portion of the city, including the Pocket area, lies within the study area.

City of Stockton

The Stockton City Council approved an update to its general plan on December 11, 2007. The Land Use Element of Stockton's general plan establishes an Open Space/Agriculture designation that aims to preserve natural resources and agriculture that are to remain under the jurisdiction of San Joaquin County. The Natural and Cultural Resources Element outlines policies designed to reduce environmental effects within the city. The element addresses biological, cultural, agricultural, soil, scenic, mineral, and energy resources, defining goals and policies aimed toward these resources. Other plan elements, including those dedicated to public facilities and services, recreation and waterways, and health and safety—add other policies and guidelines related to avoiding or reducing environmental effects in the city (City of Stockton 2007, 2011). Of the land assigned land use designations in the city's general plan, approximately the western third lies within the study area.

City of Suisun City

Suisun City's general plan land use map identifies land as Agriculture-Open Space and Park. In the plan's individual elements, and particularly in the Open Space and Conservation Element, the city identifies goals, objectives, and policies related to protecting agricultural resources, natural resources related to the Suisun Marsh, air resources, and visual and historical resources. (City of Suisun City 1992). Only a southern portion of the city representing approximately 430 acres lies within the study area, north of Suisun Marsh.

City of Tracy

The City of Tracy's general plan was updated on February 1, 2011 (City of Tracy 2011). The plan's Open Space and Conservation Element addresses the preservation of open space and agricultural land and the conservation of natural resources and enumerates goals, objectives, and policies

related to threatened and endangered habitat and species, agricultural lands, mineral resources, parks and recreational opportunities, and energy conservation. Other plan elements relating to safety, noise, and air quality also identify policies and designations that seek to avoid or mitigate environmental impacts. A majority of the land in the city is located within the study area.

City of West Sacramento

West Sacramento's general plan policy document was last revised and adopted on October 8, 2008. The Natural Resources Element of the document identifies policies that are intended to reduce environmental impacts and includes measures specific to water quality; agricultural land; sensitive native vegetation, wildlife communities, and habitat; and air quality (City of West Sacramento 2004). An element dedicated to recreational and cultural resources includes policies designed to mitigate other effects. The general plan policy document also describes Open Space and Agriculture land use designations. The study area contains a majority of West Sacramento's land area.

13.3 Environmental Consequences

This section describes potential direct (both temporary and permanent) and indirect effects on land uses that would result with implementation of each alternative. For the purposes of this chapter, temporary effects are defined as those occurring during the construction period and not continuing substantially beyond the construction period (in some cases, temporary land use effects created during the nine-year construction period could last beyond the completion of construction activities, as in the cases of reestablishing natural communities or agricultural production). Permanent effects are those effects that would be expected to last considerably beyond the construction period, for the duration of the permit term. The impact analysis separates each of the alternatives' proposed features into two categories; water conveyance facilities (CM1), which are project-level features and other conservation measures (CM2–CM21), which are programmatic features. CM22 (Avoidance and Minimization Measures) is not anticipated to result in any meaningful effects on land use in the study area because actions associated with this measure are not, for the most part, land-based or land-focused activities, nor would they be expected to result in any direct or indirect effects on land use in the study area. As such, this measure will not be addressed further in this analysis.

13.3.1 Methods for Analysis

Potential temporary, permanent, direct, and indirect land use impacts associated with each alternative were assessed based on the compatibility of constructing and operating the alternatives with the existing and planned land uses in the study area, which includes all or portions of the following geographic areas: Alameda, Contra Costa, Sacramento, San Joaquin, Solano, Sutter, and Yolo Counties; incorporated cities lying partially or fully within the study area; the Stone Lakes National Wildlife Refuge, Lower Sherman Island Wildlife Area, and Brannan Island and Franks Tract State Recreation Areas within the Delta; the Suisun Marsh west of the Delta; and the Yolo Bypass upstream of the Delta.

For purposes of determining land use compatibility, aerial imagery was reviewed to identify residences and other structures (e.g., commercial and industrial units, storage or support facilities relating to agricultural operations, private recreational structures such as docks or pools) in the study area. It was assumed that some land uses including residential uses, schools, religious

institutions, and open space are sensitive uses that could potentially be disrupted by changes in adjacent land uses because of BDCP implementation.

Generally state and federal agencies, as well as some local or regional agencies involved with the location or construction of facilities for the production, generation, storage, treatment, or transmission of water are not subject to local land use regulations and inconsistency with a specific local land use regulation is not by itself an adverse effect on the environment.[3] However, this EIR/EIS, in assessing whether particular categories of environmental effects are adverse (NEPA) or significant (CEQA), considers relevant local land use regulations that are adopted for the purpose of avoiding or mitigating an environmental impact. BDCP compatibility and potential effects on planned future land uses were assessed by reviewing land use designations, goals, and policies described above in Section 13.2, *Regulatory Setting*, and are listed as follows.

- Delta Stewardship Council Delta Plan
- DPC Land Use and Resource Management Plan
- Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan
- Lower Sherman Island Wildlife Area Land Management Plan
- General Plan for Brannan Island and Franks Tract State Recreation Areas
- Yolo Bypass Wildlife Area Land Management Plan
- San Francisco Bay Plan
- Suisun Marsh Protection Plan
- California Land Conservation Act of 1965 (Williamson Act)
- Alameda County East County Area Plan
- Contra Costa County General Plan 2005–2020
- Sacramento County General Plan
- San Joaquin County General Plan
- Solano County General Plan
- Sutter County General Plan
- Yolo County 2030 Countywide General Plan
- General plans for the cities of Antioch, Benicia, Brentwood, Elk Grove, Fairfield, Isleton, Lathrop, Lodi, Manteca, Oakley, Pittsburg, Rio Vista, Sacramento, Stockton, Suisun City, Tracy, and West Sacramento
- Borges-Clarksburg Airport Comprehensive Land Use Plan
- Byron Airport Land Use Compatibility Plan
- Rio Vista Airport Land Use Compatibility Plan
- Sacramento International Airport Comprehensive Land Use Plan
- San Joaquin County Airport Land Use Compatibility Plan
- Travis Air Force Base Land Use Compatibility Plan

[3] See, e.g., *Hall v. Taft* (1956), 47 Cal. 2d 177, 183; *Town of Atherton v. Superior Court* (1958) 159 Cal.App.2d 417 and *Lawler v. City of Redding* (1992) 7 Cal. App. 4th 778, 784.

As noted above, land use designations were also classified into general land use categories and mapped for those counties potentially affected by the action alternatives and for those cities specifically affected by the temporary or permanent footprint of water conveyance facilities (Figure 13-2). The land uses for each land use designation were identified by reviewing each county and applicable city general plan.

13.3.2 Determination of Effects

The impacts of the alternatives on land use may result from both construction and operation of BDCP features. This impact analysis assumes that an action alternative would have an adverse effect (under NEPA) and a significant impact (under CEQA) on land use according to the degree of landscape change associated with the following conditions. Thus, an alternative would cause adverse effects on land use if it would result in one of the following conditions.

- Physically divide any established community, including incorporated cities and Legacy Communities. For the purpose of this analysis, this includes any activities lasting longer than one year that would cross a community or create physical structures that would serve to substantially alter the setting of a community or its immediate surroundings.
- Conflict with or threaten to violate any applicable land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect, with the consequence that significant effects on the physical environment would result.
- Create land uses substantially incompatible with existing land uses within or adjacent to the study area. For the purpose of this analysis, this would include where implementing a BDCP alternative would result in the relocation of residents, the relocation of public service facilities, or a physical impact to existing structures, with the consequence that significant effects on the physical environment would result.

Because conflicts with the above listed land use policies, regulations, or plans, even those that (unlike local planning documents or the DPC's LURMP) are applicable to DWR as a state agency, do not by themselves constitute adverse alterations of, or effects on, the physical environment, the Lead Agencies, in preparing this assessment (in Impacts LU-1 and LU-4), have framed their conclusions in terms of whether proposed BDCP alternatives are "compatible" or "incompatible" with such enactments, rather than whether any environmental impacts are "adverse," "beneficial," "significant," or "less than significant." If the incompatibility relates to an applicable plan, policy, or regulation adopted to avoid or mitigate environmental effects, then an incompatibility might be indicative of a related significant or adverse effect under CEQA and NEPA, respectively. An example of this general approach exists with respect to agricultural preserves, for purposes of notice, and to contracts under the Williamson Act and Farmland Security Zone designations. Those contracts must be enforceable under the provisions of California Constitution, Article XIII, Sec. 8. Because these contracts restrict the use of the land to agricultural and strictly defined open space uses during the course of the contract, the early termination of the contract is indicative of a significant adverse environmental effect, unless the new use will fit within the permitted or compatible uses for a time at least as long as the time remaining on the contract. The physical effect in these cases would be the susceptibility of the land to uses not previously restricted during the life of the abrogated restriction or contract. As noted below, such physical effects are addressed in other chapters focusing on specific resource categories (e.g., biological resources). The Lead Agencies, in preparing an assessment of other aspects of land use (Impacts LU-2, LU-3, LU-5, and LU-6), have framed their conclusions in terms of whether any environmental impacts are "adverse," "beneficial," "significant," or "less than significant."

The potential for conflicts with an existing HCP or NCCP is addressed in Chapter 12, *Terrestrial Biological Resources,* Section 12.3.3.18, *Effects on Other Conservation Plans*; effects associated with designated recreational facilities are addressed in Chapter 15, *Recreation*; potential effects on air transportation involving the risk of increased aircraft-bird strikes as a result to the proposed restoration activities are addressed in Chapter 24, *Hazards and Hazardous Materials*; and effects associated with impacts on community character are addressed in Chapter 16, *Socioeconomics*. In addition, Chapter 14, *Agricultural Resources* addresses potential project-related impacts to or conflicts with agriculture, including temporary and permanent conversion of agricultural lands to non-agricultural uses, as well as direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones (the potential for indirect conflicts relating to the Williamson Act are discussed in this chapter, however). Physical effects resulting from relocation of residents or public utilities are respectively discussed in Chapter 16, *Socioeconomics,* and Chapter 20, *Public Services and Utilities*. Potential effects from hazardous materials associated with the removal of existing structures are discussed further in Chapter 24, *Hazards and Hazardous Materials*, as are potential aviation hazards as a result of BDCP implementation within the vicinity of airports. Potential conflicts with traditional cultural properties or unique archaeological resources are addressed in Chapter 18, *Cultural Resources.* Potential temporary or permanent direct or indirect effects on land use in the SWP and CVP Export Service Area Region are evaluated in Chapter 30, *Growth Inducement and Other Indirect Effects*.

Compatibility with plans and policies related to specific resource areas are discussed throughout the document in specific resource chapters. Please see the following chapters and sections for further discussion of compatibility with plans and policies: Chapter 9, *Geology and Seismicity*, Section 9.3.2.1; Chapter 10, *Soils,* Section 10.3.2.1; Chapter 12, *Terrestrial Biological Resources,* Impact BIO-186; Chapter 15, *Recreation,* Impact REC-12; Chapter 16, *Socioeconomics,* Section 16.3.2.1; Chapter 17, *Aesthetics and Visual Resources,* Impact AES-7; Chapter 18, *Cultural Resources,* Impact CUL-8; Chapter 19, *Transportation,* Impact TRANS-11; Chapter 20, *Public Services and Utilities*, Section 20.3.2.1; Chapter 21, *Energy,* Impact ENG-3; Chapter 22, *Air Quality and Greenhouse Gases,* Impacts AQ-1 through AQ-9; Chapter 23, *Noise*, Impacts NOI-1 through NOI-4; Chapter 24, *Hazards and Hazardous Materials,* Section 24.3.2; Chapter 25, *Public Health,* Section 25.3.2; Chapter 26, *Minerals,* Section 26.3.2; Chapter 27, *Paleontological Resources*, Section 27.3.2.1; Chapter 28, *Environmental Justice,* Section 28.5.5.1; Chapter 29, *Climate Change*, Section 29.7; and Chapter 30, *Growth Inducement and Other Indirect Effects*, Section 30.3.3.2. Regional plans and those geared toward the management of specific areas, including the Stone Lakes National Wildlife Refuge CCP, Brannan Island and Franks Tract State Recreation Areas, Yolo Bypass Wildlife Area Land Management Plan, Lower Sherman Island Wildlife Area Land Management Plan, San Francisco Bay Plan, and Suisun Marsh Protection Plan are primarily designed to preserve and enhance the natural resource and recreation qualities of these areas. Implementing the BDCP alternatives may create disruptions related to facility and restoration improvements. Proposed restoration areas in the Yolo Bypass, on Sherman Island, and in Suisun Marsh would be designed to be consistent with and complement the current management direction for these areas and would be required to adapt restoration proposals to meet current policy established for managing these areas.

In addition to compliance with the plans listed above, the BDCP must comply with the Delta Reform Act in its consideration of alternatives and topics for review and analysis. These topics and their relevant section(s) in the EIR/EIS are summarized in Table 13-1, below. A more detailed account of Delta Reform Act requirements and the BDCP EIR/EIS treatment of these requirements is provided by Appendix 3I, *BDCP Compliance with Delta Reform Act*.

Table 13-1. BDCP EIR/EIS Compliance with the Delta Reform Act

Topic	Relevant Section(s) of EIR/EIS
Range of BDCP Flow Criteria, Rates of Diversion, and Operational Criteria	The Delta Reform Act requires comprehensive review and analysis of "A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of Section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses." Ranges of flow criteria and rates of diversion are described in Chapter 3, *Description of Alternatives,* Sections 3.4.2 and 3.6.4.2*.* Effects on fisheries are discussed in Chapter 11, *Fish and Aquatic Resources,* Section 11.3 and effects on water supply are discussed in Chapter 5, *Water Supply*, Section 5.3.
Range of BDCP Conveyance Alternatives	The Delta Reform Act requires comprehensive review and analysis of "A reasonable range of conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives and including further capacity and design options of a lined canal, an unlined canal, and pipelines." A range of conveyance alternatives are described in Chapter 3, *Description of Alternatives,* Sections 3.4.1 and 3.5. Analysis of the environmental effects of these conveyance alternatives appears in chapters throughout this EIR/EIS.
Effects of Climate Change on BDCP activities	The Delta Reform Act requires comprehensive review and analysis of "The potential effects of climate change, possible sea level rise up to 55 inches, and possible changes in total precipitation and runoff patterns on the conveyance alternatives and habitat restoration activities considered in the environmental impact report." These potential effects are described and assessed in Chapter 29, *Climate Change.* Effects of climate change are also considered as a baseline factor in assessing the long-term consequences of the project on water supply, as described in Chapter 5, *Water Supply,* Section 5.3.1.
BDCP effects on Fish and Aquatic Resources	The Delta Reform Act requires comprehensive review and analysis of "The potential effects on migratory fish and aquatic resources." These effects are assessed in Chapter 11, *Fish and Aquatic Resources,* Section 11.3.
BDCP effects on Flood Management	The Delta Reform Act requires comprehensive review and analysis of "The potential effects on Sacramento River and San Joaquin River flood management." These issues are described in Chapter 6, *Surface Water,* Section 6.3*.*
Effects of Natural Disasters on BDCP conveyance alternatives	e Delta Reform Act requires comprehensive review and analysis of "The resilience and recovery of Delta conveyance alternatives in the event of catastrophic loss caused by earthquake or flood or other natural disaster." Potential effects of natural disasters on BDCP alternatives are discussed in Chapter 6, *Surface Water,* Section 6.3, and Chapter 9, *Geology and Seismicity,* Section 9.3. Risks associated with climate change are also described in Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies.*
BDCP effects on Water Quality	The Delta Reform Act requires comprehensive review and analysis of "The potential effects of each Delta conveyance alternative on Delta water quality." These effects are described and assessed in Chapter 8, *Water Quality,* Section 8.3.

13.3.3 Effects and Mitigation Approaches

13.3.3.1 No Action Alternative

NEPA Effects: The No Action Alternative describes expected future conditions at the year 2060 resulting from a continuation of existing policies and programs by federal, state, and local agencies in the absence of the BDCP alternatives. As described in Chapter 3, *Description of Alternatives*, the No Action Alternative assumptions are limited to Existing Conditions, programs adopted during the early stages of development of the EIR/EIS, facilities that are permitted or under construction during the early stages of development of the EIR/EIS, and foreseeable changes in development that would occur with or without the BDCP.

Under the No Action Alternative, statewide and federal programs to preserve open space and agricultural lands would continue to be implemented. Additionally, those projects and programs listed in Table 13-2 are also considered part of the No Action Alternative. The land uses in the Delta would be similar to those of today because only limited types of development are allowed in the Primary Zone of the Delta.

Under the No Action Alternative some change in study area land use and local communities would occur as a result of localized population growth and conversion of agricultural land uses. In recent years California has lost agricultural land at a rate of about 50,000 acres annually. This loss is due in part to urban development fueled by a number of factors including population growth (University of California Agricultural Issues Center 2009) as well as drainage problems, loss of a reliable or affordable water supply, and conversion to wildlife habitat. These circumstances suggest that existing Delta land use patterns and agricultural uses may experience change related to continued development pressure in areas outside the primary zone. Other factors that may affect agricultural and rural land use conditions in the study area over the long term include continued land subsidence on Delta islands, levee instability and potential flood risk, and sea level rise effects on land uses near existing waterways. These potential effects are discussed further in Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies*.

Foreseeable land use changes in the study area could be incompatible with applicable land use designations, goals, and policies. Habitat restoration or development projects would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council Proposed Final Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Depending on its location and other characteristics, habitat restoration and urban development projects may result in incompatibilities with these policies and with local land use plans.

Table 13-2. Effects on Land Use from the Plans, Policies, and Programs for the No Action Alternative

Agency	Program/Project	Status	Description of Program/Project	Effects on Land Use
California Department of Water Resources	Mayberry Farms Subsidence Reversal and Carbon Sequestration Project	Completed October 2010	Permanently flood 308-acre parcel of DWR owned land (Hunting Club leased) and restore 274 acres of palustrine emergent wetlands within Sherman Island to create permanent wetlands and to monitor waterfowl, water quality, and greenhouse gases.	Previous land use was winter-flooded emergent wetlands and grazing land.
Contra Costa Water District	Contra Costa Canal Fish Screen Project (Rock Slough)	Under construction as of July 2011	Installation of a fish screen at Rock Slough Intake.	Contra Costa Water District provides water to 20 agricultural customers. Construction activities may affect intake operations.
Contra Costa Water District, Bureau of Reclamation, and California Department of Water Resources	Middle River Intake and Pump Station (previously known as the Alternative Intake Pump Station)	Project completed and was formally dedicated July 20, 2010	This project includes a potable water intake and pump station to improve drinking water quality for Contra Costa Water District customers.	Project resulted in permanent conversion to nonagricultural uses of 6–8 acres of Prime Farmland and Farmland of Statewide Importance in San Joaquin County, on Victoria Island, at the intake and pump stations. Additionally, temporary construction easement impacts included approximately 25–40 acres identified as Prime Farmland and Farmland of Statewide Importance.
California Department of Water Resources	Federal Energy Regulatory Commission (FERC) License Renewal for Oroville Project	Draft Water Quality Certification issued December 6, 2010 and comments on Draft received December 10, 2010	The renewed federal license will allow the Oroville Facilities to continue providing hydroelectric power and regulatory compliance with water supply and flood control.	No effects on agricultural acreages are anticipated. A slight change in water temperatures, however, may affect rice production.
Freeport Regional Water Authority and Bureau of Reclamation	Freeport Regional Water Project	Project was completed late 2010.	Project includes an intake/pumping plant near Freeport on the Sacramento River and a conveyance structure to transport water through Sacramento County to the Folsom South Canal.	Project resulted in permanent conversion of approximately 50–70 acres of farmland to nonagricultural uses. Approximately 35–45 acres of farmland and 415 acres of land subject to Williamson Act contracts were temporarily affected.

Table 13-2. Continued

Agency	Program/Project	Status	Description of Program/Project	Effects on Land Use
California Department of Water Resources and Solano County Water Agency	North Bay Aqueduct Alternative Intake Project		This project will construct an alternative intake on the Sacramento River and a new segment of pipeline to connect it to the North Bay Aqueduct system.	Construction activities will temporarily disrupt existing land uses; permanent footprints of facilities may also create land use conflicts.
Reclamation District 2093	Liberty Island Conservation Bank		This project includes the restoration of inaccessible, flood prone land, zoned as agriculture but not actively farmed, to area enhancement of wildlife resources.	Although this will result in a modification in zoning, the project will not convert active farmland to nonagricultural uses.
City of Stockton	Delta Water Supply Project (Phase 1)	The project is currently under construction.	This project consists of a new intake structure and pumping station adjacent to the San Joaquin River; a water treatment plant along Lower Sacramento Road; and water pipelines along Eight Mile, Davis, and Lower Sacramento Roads.	This will result in permanent conversion of 56 acres of farmland to water conveyance uses.
Bureau of Reclamation and State Water Resources Control Board	Battle Creek Salmon and Steelhead Restoration Project	Project is ongoing.	This project includes restoration of approximately 48 miles of habitat in Battle Creek and its tributaries to improve passage, growth, and recovery for anadromous fish populations.	This will result in a conversion of traditional farmland to aquaculture farming. Because the land will be used for agriculture, this would not constitute a land use change.
Tehama Colusa Canal Authority and Bureau of Reclamation	Red Bluff Diversion Dam Fish Passage Project	Expected completion in 2012.	Proposed improvements include modifications made to upstream and downstream anadromous fish passage and water delivery to agricultural lands within CVP.	Project provides beneficial effects on agricultural water deliveries within the CVP and increased pumping capacity during irrigation season. Therefore, no adverse effects on agriculture would occur.
Bureau of Reclamation, California Department of Fish and Wildlife, and Natomas Central Mutual Water Company	American Basin Fish Screen and Habitat Improvement Project		This three-phase project includes consolidation of diversion facilities; removal of decommissioned facilities; aquatic and riparian habitat restoration; and installing fish screens in the Sacramento River. Total project footprint encompasses about 124 acres east of the Yolo Bypass.	The project will result in the permanent conversion of 70 acres of farmland to other uses.

Table 13-2. Continued

Agency	Program/Project	Status	Description of Program/Project	Effects on Land Use
Bureau of Reclamation, U.S. Army Corps of Engineers, Sacramento Area Flood Control Agency, and Central Valley Flood Protection Board	Folsom Dam Safety and Flood Damage Reduction Project	Expected completion by 2016.	This project includes implementation of an auxiliary spillway, dam safety modifications, security and reduction improvements, and flood damage prevention.	This project includes minor changes to land uses.
Bureau of Reclamation	Delta-Mendota Canal/California Aqueduct Intertie	Anticipated completion by 2012.	The purpose of the intertie is to better coordinate water delivery operations between the California Aqueduct (state) and the Delta-Mendota Canal (federal) and to provide better pumping capacity for the Jones Pumping Plant. New project facilities include a pipeline and pumping plant.	Under the preferred alternative, approximately 2 acres of grazing land has been permanently converted to developed land.
Yolo County	General Plan Update	General plan was adopted November 10, 2009.	Anticipated implementation of policies and programs such as the Farmland Conversion Mitigation Program would minimize conversion of agricultural land to nonagricultural uses through mitigation.	While buildout of the Yolo County General Plan would likely result in some conversion of farmland to nonagricultural uses, the Farmland Conversion Mitigation Program would minimize the occurrence of conversion and mitigate the effects.
Zone 7 Water Agency and California Department of Water Resources	South Bay Aqueduct Improvement and Enlargement Project	Project is ongoing.	The project includes construction of the Dyer Reservoir, Altamont Water Treatment Plant, and a pipeline to transport the water from the enlarged South Bay Aqueduct.	During Stage 3 of the project, Brushy Creek and Dyer Reservoir will permanently convert 27 acres of grazing land to other uses.
National Marine Fisheries Service, U.S. Fish and Wildlife Service	2008 and 2009 Biological Opinions	Ongoing	The Biological Opinions issued by NMFS and USFWS establish certain RPAs and RPMs to be implemented. Some of the RPAs require habitat restoration which may require changes to existing land uses.	Habitat restoration actions required under the RPAs could result in up to 8,000 acres of land use conversions. Land use could be temporarily affected by changes in operation of the Yolo Bypass.

Such changes to land use would also be expected to conflict with existing land uses. Habitat restoration or urban development would directly affect land uses within the study area by both temporarily converting existing land uses during construction and permanently converting existing land uses. Indirect impacts would primarily happen as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, due to land use restrictions in the Primary Zone of the Delta, activities creating conflicts with existing land uses would likely be limited to a small percentage of the total land area within the study area.

Land use changes under the No Action Alternative would not be anticipated to result in the physical division of any existing communities within the study area.

Overall, the effects of plans, policies, programs, and other reasonably foreseeable circumstances included as part of the No Action Alternative would not be anticipated to result in adverse effects on land use within the study area.

Climate Change and Catastrophic Seismic Risks

Land uses within the study area are primarily agricultural in nature. The potential for major seismic events, along with the potential effects of climate change, could affect ongoing agricultural uses if they resulted in the failure of levees or in climatic conditions less favorable for productive agricultural uses. Such events could also result in the physical division of existing Delta communities and effects on individual homes and businesses. (See Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies* for more detailed discussion of seismic and climate change risks).

CEQA Conclusion: Under the No Action Alternative, existing land use designations, goals, and policies would guide land use in the Delta in a similar way as it exists today. Physical impacts on land use are anticipated to be less than significant under this alternative. Potential future effects on land use are discussed further in Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies*.

13.3.3.2 Alternative 1A—Dual Conveyance with Pipeline/Tunnel and Intakes 1–5 (15,000 cfs; Operational Scenario A)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Alternative 1A would result in the construction of permanent and temporary features associated with the proposed water conveyance facility across land governed by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. Constructing Alternative 1A would require land use activities that would be incompatible with land use designations, goals and policies ascribed to the study area and for the purposes of reducing environmental impacts. To the extent that constructing Alternative 1A would result in incompatibilities with land use designations, goals and policies designed to avoid or reduce environmental effects, these potential incompatibilities are described below. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Because the primary conveyance component for Alternative 1A would be an underground tunnel, there would be no permanent adverse physical effects on or incompatibilities with surface land use solely due to this subsurface component; similarly, conveyance pipelines would not result in a permanent land surface change, and accordingly there would be no direct permanent incompatibilities with existing land use designations due to these subsurface features. As such, excepting construction activities potentially occurring over the nine-year construction period (e.g., tunneling and open-trench installation of pipelines) and surface features related to the tunnels and conveyance pipelines (e.g., reusable tunnel material [RTM] areas, shafts, access roads), permanent incompatibilities with existing land uses as they pertain to the proposed tunnel and pipelines are not discussed further.

Table 13-3 displays the temporary and permanent structures associated with the water conveyance facility, the local land designations on which they would occur, and the number of acres that would be affected. Mapbook Figure M13-1 displays relevant generalized land use designations where they could overlap with proposed water conveyance structures and temporary work areas. Note that not all of these structures would be built under any individual alternative. For further discussion of the locations of various structures, please refer to Chapter 3, *Description of Alternatives*.

State and Regional Plan Policies

Under Alternative 1A, construction activities associated with the features listed in Table 13-3 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council Final Draft Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. Additionally, because CM1 activities would occur outside of priority habitat restoration areas as identified by the Delta Plan, ER P3 would not apply. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an Agricultural Lands Stewardship Plan [ALSP] to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be infeasible; thus, activities associated with CM1 would be compatible with Policy DP P2.

Table 13-3. Water Conveyance Incompatibilities with Land Use Designations under Alternative 1A (acres)

	Alameda County				Contra Costa County						Sacramento County							San Joaquin County		
Surface Feature	Agriculture	Commercial	Public	Residential	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Forebay					141	526		26	160	2	1,002									
Intake											267	1		3	7	54				
Potential Borrow Area											584				0					
Potential Spoil Area	205	1	7	4	406				1											
Shaft Location											85					0		199	66	
Transmission Line	2	0	1	0	7	12	1		6	1	79	1		0	2	5	1	98	28	0
Reusable Tunnel Material Area											695							887	14	
Subtotal Permanent	**207**	**1**	**8**	**4**	**554**	**538**	**1**	**26**	**167**	**3**	**2,712**	**2**		**3**	**9**	**59**	**1**	**1,184**	**108**	**0**
Access Road Work Area					0				6											
Barge Unloading Facility											27					5		42	99	
Concrete Batch Plant				0	2						44							40		
Control Structure Work Area					1				3											
Fuel Station	1			1	0						6							2		
Intake Work Area											497	2	4	0	9	79	0			
Pipeline											66									
Pipeline Work Area											114		25							
Road Work Area					0				1											
Safe Haven Work Area											37				0	0		68	1	
Transmission Line	1	0	1	0	5	11	0		7	1	101	0	1		2	1	0	83	47	0
Tunnel Work Area											69							62		
Subtotal Temporary	**2**	**0**	**1**	**1**	**8**	**11**	**0**		**17**	**1**	**961**	**2**	**30**	**0**	**11**	**85**	**0**	**297**	**147**	**0**
Grand Total	**209**	**1**	**8**	**5**	**562**	**549**	**1**	**26**	**184**	**4**	**3,673**	**4**	**30**	**3**	**20**	**144**	**1**	**1,481**	**255**	**0**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines.
Acreages are rounded; acreage less than 0.5 has been rounded to 0.

Alternative 1A may also result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Intake structures require contact with water and cannot feasibly be set back from levees. Additionally, Land Use P-14 states that agricultural lands converted to water impoundment may not result in seepage of water and that such conversions must mitigate associated risks and effects. Forebays constructed for this alternative would avoid and mitigate for the effects of seepage, as described under Impact GW-5 in Chapter 7, *Groundwater,* and its associated mitigation measure. Forebay design, as well as this proposed mitigation, would establish compatibility with this policy. Incompatibilities could occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1. These potential incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals and policies, any related environmental effects are discussed in other chapters.

Under this alternative, indirect effects on land use may also arise through conflicts with land subject to Williamson Act contracts or in Farmland Security Zones. If the construction and operation of water conveyance facilities under this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Sacramento County

Permanent surface features associated with that portion of the water conveyance facility that would fall in Sacramento County include five intakes (with associated features), an intermediate forebay, borrow areas, shaft locations, RTM areas, and transmission lines. RTM areas are considered permanent surface impacts for the purposes of impact analysis. However, as described in Appendix 3B, *Environmental Commitments,* it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, Following removal of material, stockpiled topsoil at RTM storage areas would be reapplied, and disturbed areas will be returned as near as feasible to preconstruction conditions by carefully grading to re-establish surface conditions and reconstructing features such as irrigation and drainage facilities. Temporary features include barge unloading facilities, concrete batch plants, fuel stations, transmission lines, and work areas for construction of physical features. Table 13-3 summarizes these impacts and the land use designations with which they would be incompatible. These construction activities would be incompatible with general plan agriculture and open space policies, including Policy AG-5, regarding the conversion of farmland, and Policies OS-1 and OS-2, regarding the protection of open space and natural areas. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Portions of the Alternative 1A water conveyance facilities, including Intake 1, would be built within the Borges-Clarksburg Airport CLUP Overflight Zone, which contains territory in Sacramento and Yolo counties. Construction and facilities operations and

maintenance activities have the potential to be incompatible with an Overflight Zone policy limiting congregations of people.

San Joaquin County

Alternative 1A would result in the permanent conversion of land designated as Agriculture/General, Open Space/Resource Conservation, and Residential in San Joaquin County due to the construction of tunnel shafts, RTM areas, transmission lines, and temporary features including barge unloading facilities, concrete batch plants, a fuel station, and work areas. Table 13-3 summarizes these impacts and the land use designations with which they would be incompatible. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described above and in Appendix 3B, *Environmental Commitments*. Many of the temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated as Agriculture would be temporarily converted to non-agricultural use. Construction during this period and permanent conversion of agricultural land would be incompatible with general plan policies, including Agricultural Lands Policy 5, which reserves agricultural areas principally for crop production, ranching and grazing. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

The placement of tunnel shafts, transmission lines, and RTM areas, were they to occur on or adjacent to lands designated under the San Joaquin County General Plan as Open Space/Resource Conservation would be incompatible with this land use designation. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Contra Costa County

Under Alternative 1A, permanent project water conveyance features in Contra Costa County would include Bryon Tract Forebay, associated water control structures, spoil areas, and transmission lines. Table 13-3 summarizes these impacts and the land use designations with which they would be incompatible. Constructing the forebay on lands within the Delta Recreation and Resources designation would be incompatible with the goals of the Contra Costa County General Plan related to this land use designation, which focus on the preservation of land for recreation and agricultural production and processing over the placement of new infrastructure. Construction of the forebay may be incompatible with the general plan Goal 3-G, which discourages development not related to agriculture, mineral extraction, wind energy or other appropriate rural uses on vacant rural lands. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

A narrow area of land running through the proposed future location of Byron Tract Forebay is designated Public/Semi-Public. The Public/Semi-Public designation includes properties owned by public governmental agencies such as libraries, fire stations, and schools. This designation is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public/Semi-Public designation applies to properties owned by public agencies and privately owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation.

Temporary project features in Contra Costa County associated with the construction of the water conveyance facility would include a concrete batch plant, part of a fuel station, transmission lines, and various work areas. Many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above; however, they would occur over a shorter period of time. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Portions of Alternative 1A water conveyance facilities at Clifton Court Forebay would be built in areas covered by Byron Airport LUCP Zones B2, C1, and D. Construction and facilities operations and maintenance activities could be incompatible with policies that limit congregations of people, require ALUC review of tall objects, and prohibit aboveground bulk storage of hazardous materials.

Alameda County

Under Alternative 1A, the only permanent project water conveyance features proposed within Alameda County are a spoil area and transmission lines, which would be constructed on land designated for Agriculture, Commercial, Public, and Residential uses, as indicated in Table 13-3. Small sections (approximately 1.5 acres) of a fuel station and concrete batch plant, along with other transmission lines, would comprise the potential temporary effects of this alternative on land use in Alameda County. These areas would be located on land designated for the uses listed above, which would be incompatible with the designation and potentially with ECAP policies, including Policy 71, which seeks to conserve farmland soils. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Construction of the proposed water conveyance facility under Alternative 1A could directly affect land uses within the study area by both temporarily converting existing land uses during construction and permanently converting existing land uses (including displacement of existing structures and residences) because of the construction of permanent features of the facility. Indirect impacts would primarily happen as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels.

Construction of water conveyance features associated with Alternative 1A would directly affect land use in the study area by temporarily converting land currently under agricultural and open space uses to temporary access roads, spoils areas, and temporary work and staging areas. These effects would be temporary with this land returning to agricultural use following construction.

Construction of water conveyance features associated with Alternative 1A would also directly affect land use in the study area by permanently converting land currently under agricultural land use and open space to permanent access roads, intakes and associated facilities, pumping plants, control structures, a small segment of canal, two new forebays, RTM areas, and footings for electric

transmission line towers. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*. In addition, approximately 204 permanent structures would be removed or relocated within the water conveyance facility footprint under this alternative. This includes an estimated 59 residential buildings. Other structures affected would consist primarily of storage or agricultural support facilities; however, several private recreational structures would also be affected. One fire station in the community of Hood would also be affected. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment. The physical footprints of intakes and intake pumping plant facilities, along with associated work areas, are anticipated to create the largest disruption to structures, conflicting with 100 structures in the vicinity of the east bank of the Sacramento River. Among the five intake sites, 38 residential structures would be affected. Construction of pipelines to convey water between the intakes is estimated to create conflicts with another 27 structures, including 8 residential structures. These conflicts would be located where the conveyance pipeline from Intake 3 crosses the community of Hood and near the point where the conveyance pipeline from Intake 1 would connect to the initial tunnel. The footprint of the proposed Byron Tract forebay would also affect approximately 29 structures. These would be concentrated on the east side of the forebay near Old River and on the west side of the forebay near the approach channel to the California Aqueduct. Other features—including tunnel shaft sites, RTM areas, tunnel work areas, borrow areas, barge unloading facilities, and fuel stations—would also create disruptions to existing structures.

Table 13-4. Estimated Water Conveyance Conflicts with Existing Structures

	Type of Structure				
Alternative	Residential	Recreational	Storage/Support	Other[a]	Total
1A	59	15	120	10	204
1B	109	22	257	21	409
1C	194	31	469	32	726
2A	70	15	124	13	222
2B	121	23	262	25	431
2C	194	31	469	32	726
3	37	7	90	10	144
4	19	8	45	9	81
5	29	4	81	9	123
6A	59	15	120	10	204
6B	109	22	257	21	409
6C	194	31	469	32	726
7	38	8	88	9	143
8	38	8	88	9	143
9	74	69	93	19	255

[a] *Other* structures include power/utility structures, bridges, and other types of infrastructure.

Indirect effects on existing land uses may also arise from changes in access to parcels of land. For example, the removal of access for agricultural vehicles and machinery could jeopardize the ability of that land to continue serving productive agricultural uses. As described in Chapter 19, *Transportation,* the levee road along State Route (SR) 160 and Randall Island Road would require

temporary detour roads during construction of the intakes. Because temporary access routes around these construction areas would be built prior to the disruption of the existing road network, residents and travelers through the Delta would not experience substantial delays in travel from one side of the intake area to the other.

This loss of access would not be considered an adverse effect under this impact. The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility, however, would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

CEQA Conclusion: Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would not constitute mitigation for any related physical impact; however, it would reduce the severity of economic effects.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternative 1A, the construction of permanent facilities and associated work areas would be located in and around the community of Hood, in some cases displacing structures in the community and creating linear construction zones between structures within the community. Intake 4 and its associated pumping plant, transmission lines, and access roads, would be constructed along the southern border of the community over a period of approximately four years. While access to the community from the south would continue with the construction of a temporary roadway, the point where this access occurs would change during this period. Work areas associated with construction of the conveyance pipeline carrying water from Intake 3 to the intermediate forebay would run north to south in the eastern section of the community. During construction of this project facility, access would be limited between the main portion of the community and its easternmost structures (as well as other points to the east). Additionally, construction and the long-term placement of Intake 3 and the intermediate forebay (about one-half

mile north and south of Hood, respectively) would substantially alter the lands surrounding Hood. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and intermediate forebay would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

CEQA Conclusion: During the construction of the conveyance pipeline between Intake 3 and the intermediate forebay, construction activities would cross the community of Hood, limiting access between some of the community's easternmost structures and the main section of the community. Even though access to and from the community would be maintained over the long-term, the placement of Intake 4 and its associated facilities, as well as the nearby construction of Intake 3 and the intermediate forebay, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: This section assesses the compatibility of CM2–CM21 that would be implemented across 11 conservation zones (CZs) (described in detail in Chapter 3, *Description of Alternatives,* Section 3.3.2) with the predominant applicable county land use designations in those zones, as well as with other applicable local and regional land use designations, goals, and policies. Table 13-5 identifies county land use designations and the county land use jurisdictions for each of the CZs. Small acreage inclusions of other specific land use designations are also within each zone. Table 13-5 provides a general overview of the designations in each zone rather than an identification of every land use or jurisdiction in each zone. Note that none of these measures are proposed for implementation in CZ 10; CZs were delineated primarily on the basis of landscape characteristics and logical geographic or landform divisions to create a structured approach to how and where conservation actions, as part of the conservation measures, would be carried out within the Plan Area (which lies within the study area for this chapter).

Table 13-5. Predominant Land Use Designations in the Conservation Zones (CZs)

CZ	Jurisdiction	General Plan Land Use Designation
1	Solano County	Agriculture
2	Solano County	Agriculture
	Sutter County	Open Space
	Yolo County	Agriculture, Open Space
3	Solano County	Agriculture
	Yolo County	Agriculture, Open Space
	Sacramento County	Agricultural Cropland
4	Sacramento County	Agricultural Cropland, Agriculture-Recreation Reserve, Natural Preserve
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
5	Sacramento County	Agricultural Cropland, Agriculture-Recreation Reserve, Natural Preserve
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
6	Contra Costa County	Single Family Residential Low Density, Agricultural Lands, Public/Semi Public, Open Space
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
7	San Joaquin County	General Agriculture, Open Space/Resource Conservation
8	San Joaquin County	Commercial Recreation, Residential-Medium and Low Density, General Agriculture
	Contra Costa County	Agriculture Core, Delta Recreation and Resources
	Alameda County	Large Parcel Agriculture, Major Public
9	Contra Costa County	Agriculture Core, Delta Recreation and Resources
10[a]	Contra Costa County	Delta Recreation, Open Space, Heavy Industry, Commercial, Multi-Family Residential Low, Single Family Residential High
11	Solano County	Marsh, Agriculture

[a] Note that none of these conservation measures are proposed for CZ 10; CZs were delineated primarily on the basis of landscape characteristics and logical geographic or landform divisions to create a structured approach to how and where conservation actions would be carried out within the Plan Area (which lies within the study area for this chapter). CZ 10 occurs in a very urbanized portion of Contra Costa County with a diverse number of land use designations.

Over the 50-year BDCP implementation period, the BDCP Implementation Office would secure sufficient lands to restore approximately 65,000 acres of tidal communities; 10,000 acres of seasonally inundated floodplain; 5,000 acres of riparian natural community; 2,000 acres of grasslands; and 1,200 acres of nontidal marsh. Additionally, CM2–CM21 would enhance 20 linear miles of channel margin habitat and restore vernal pool complexes to achieve no net loss resulting from covered activities. Under the BDCP Reserve System, approximately 69,000 acres of land hosting various natural communities would be acquired and protected, including approximately 52,000 acres of cultivated lands. Protection of existing natural communities would be anticipated to be generally compatible with all regional and local designations, goals, and policies intended to avoid environmental effects, including the protection of existing agricultural uses specific to provisions under CM3 and CM11. Under these two measures, agricultural lands or easements would be acquired and managed for continued agricultural production and specific habitat values for species including Swainson's hawk, giant garter snake, greater sandhill crane, white-tailed kite, and tricolored blackbird. The management activities would include the minimization or discontinuation

of pesticide use and the creation of grassland edges, hedgerows, and small woodlots—activities that would be generally compatible with land use designations, goals, and policies relating to agricultural and natural resources. The implementation period for the various restoration and enhancement components would vary based on land identification, acquisition, planning coordination, construction duration, and other variables. These conservation measures would be located in CZs –9 and/or 11, in Contra Costa, Sacramento, San Joaquin, Solano, Sutter, and Yolo Counties. Across these CZs, agricultural and open space land use designations encompass the largest total acreage. Smaller constituent land uses in these zones include natural preserve, marsh, recreational, residential, public infrastructure, commercial, and industrial designations.

Implementation of CM2–CM21 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and in the Delta Stewardship Council draft Delta Plan. As described under Impact LU-1, Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM2–CM21 would not involve residential, commercial, or industrial development, DP P1 would not be applicable. Because CM2–CM21 activities would primarily support habitat restoration, particularly in the priority habitat restoration areas (which substantially coincide with the Restoration Opportunity Areas identified for tidal natural communities under BDCP CM4), these activities would be compatible with ER P3. Additionally, a potential restoration site's cross-sectional profile and ability to accommodate sea level rise will be considered in choosing sites for tidal habitat restoration efforts under CM4. If habitats were restored at different elevations, scientific rationale would be provided in site-specific plans. These activities would be compatible with Policy ER P2. As under effects related to CM1, however, Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM2–CM21 would be compatible with Policy DP P2.

Incompatibilities could potentially arise with LURMP policies. Land Use P-3 provides that new habitat or restoration development ensure that appropriate buffers are provided to prevent incompatibilities with existing adjacent land uses. Land Use P-14 provides that agricultural lands converted to wetland development may not result in seepage of water and that such conversions must mitigate associated risks and effects. While restoration activities in CM3–CM11 would create potential incompatibilities with these policies by creating restoration areas that could have effects on adjacent land uses through crop predation and seepage, implementation of mitigation measures proposed in other chapters would help ensure compatibility with this policy. These include Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones, described in Chapter 14, *Agricultural Resources,* and Mitigation Measure GW-5: Agricultural lands seepage minimization, in Chapter 7, *Groundwater*. Incompatibilities could occur with other LURMP policies, however, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. Depending on the locations for implementation of these measures, however, high-value agricultural land would be converted,

creating the potential for incompatibility with this policy. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with Important Farmland.

Indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If implementation of this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Implementation of CM2–CM21 in areas under the jurisdiction of an airport LUCP could be incompatible with LUCP policies if implementation could result in an attraction of birds, create foggy conditions, or place congregations of people in certain airport compatibility zones. However, because the footprints for these conservation measures are not yet known, compatibility with airport LUCPs cannot be fully evaluated. The potential for effects related to airports is further discussed in Chapter 24, *Hazards and Hazardous Materials,* Impacts HAZ-4 and HAZ-8. In addition, these issues would be addressed in greater detail in site-specific environmental documents for restoration proposals.

Conservation Measures 2–21 may also be implemented on lands guided by land use designations, goals and policies identified by county and city general plans in the study area. To the extent that implementing these conservation measures may result in incompatibilities with land use designations, goals and policies designed to avoid or reduce environmental effects, these potential incompatibilities are described below. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals and policies, any related environmental effects are discussed in other chapters.

Protection of existing natural communities would be anticipated to be generally compatible with all regional and local designations, goals, and policies intended to avoid environmental effects, including the protection of existing agricultural uses specific to provisions under CM3 and CM11.

However, where restoration or enhancement actions would directly convert agricultural land uses (in Contra Costa, San Joaquin, Sacramento, Solano, and Yolo Counties), these actions would potentially be incompatible with local land use designations and related policies that are intended to preserve agricultural resources including Contra Costa County Policy 8-2 and Agricultural Core or Agricultural Lands designations; the Sacramento County designation for Agricultural Cropland; San Joaquin County Agricultural Lands Policy 5 and the General Agricultural designation; Solano County Policies AG.P-4 and AG.P-28, along with the Agriculture designation; and Yolo County's Agriculture designation and Policies AG-1.3, AG-1.4, and AG-1.5. Physical effects implied by these potential incompatibilities would result in the loss of productive agricultural lands, which is discussed further in Chapter 14, *Agricultural Resources.*

Open Space, and Open Space/Recreation land use designations (in Contra Costa, San Joaquin, Sutter, and Yolo Counties), Natural Preserve (Sacramento County), and Marsh (Solano County) land use designations would typically be compatible with the activities associated with conservation measures that could be implemented in those counties as part of the alternative (e.g., restoration of tidal marsh, riparian habitat, grasslands, and floodplain enhancement and restoration). As such, no

permanent adverse effects would be anticipated to result based upon land use incompatibilities. In November 2010, the Yolo County Board of Supervisors approved a two-year moratorium on habitat mitigation projects within the county. While DWR and federal agencies are not subject to this moratorium, this ordinance could apply to other habitat mitigation projects by private and other public entities. Further discussion of compatibility with HCPs is located in Chapter 12, *Terrestrial Biological Resources,* Section 12.3.3.18, *Effects on Other Conservation Plans,* and further discussion of effects on recreation is located in Chapter 15, *Recreation*.

As described below, measures designed at the species-level to support viability and reduce the effects of environmental stressors on covered species would also carry the potential to alter land use within the study area. In some cases, the location of implementation for these measures is not yet known and only theoretical effects can be discussed.

Actions to manage methylmercury under CM12 could include a number of methods, including the initial characterization of soil mercury at potential restoration sites, the reduction of organic material at potential restoration sites, site design that enhances the photodegradation of methylmercury, sediment remediation, and capping of mercury-laden sediments. While these activities would not, in themselves, be anticipated to create incompatibilities with land use designations, additional standards or measures designed and implemented through the adaptive management process could create the potential for incompatibilities with land use designations, goals, and policies within the study area were they to restrict land uses or result in a change in land use necessary for the management of methylmercury.

CM13 would control nonnative aquatic vegetation including Brazilian waterweed, water hyacinth, and other nonnative submerged and floating aquatic vegetation in BDCP tidal habitat restoration areas. Site-specific conditions and the intended goal would dictate the specific method of removal. Operations associated with vegetation control, including mechanical removal, could be incompatible with existing land use designations if the construction of new facilities and structures is necessary to house related equipment and machinery. Additionally, operations under this measure may require facilities dedicated to the storage of removed vegetation, which, depending on their location, could potentially be incompatible with the land use designations or policies identified above.

Implementation of CM14 would include the operation and maintenance of an oxygen aeration facility in the Stockton Deep Water Ship Channel to increase dissolved oxygen concentrations. This conservation measure would modify the existing aeration facility as necessary and, if necessary, additional aerators and associated infrastructure would be added to optimize oxygen delivery to the river. To the extent that this facility would require physical modification on additional land not currently dedicated to similar purposes, this measure could potentially be incompatible with the land use policies or designations identified above.

CM15 is intended to reduce local effects of predators on covered fished species by conducting predator control in areas with high predator density. Predator hot spots would be identified and control methods would be adopted including removal of predator hiding spots, modification of channel geometry, targeted removal of predators, and other focused methods as dictated by site-specific conditions and the intended outcome or goal. The extent of this effect would depend on the locations identified for implementation and the extent to which methods with physical components were implemented under this measure. For instance, land-based capture of target predators need not require a change in land use. However, modification of channel geometry undertaken to create

habitats less favorable for predators could potentially be incompatible with land use designations or policies identified above.

Installation of non-physical fish barriers at the head of Old River, the Delta Cross Channel, and Georgiana Slough would occur under CM16. Other possible locations include Turner Cut, Columbia Cut, the Delta Mendota Canal intake, Clifton Court Forebay, and potentially other future locations. In addition to the installation of the barrier itself between October and June, the installation and operation could require the construction of transmission facilities and access roads, and potentially other facilities. Additionally, barriers would be removed and stored off-site while not in operation. Further discussion of this measure is provided in Chapter 3 of the BDCP, Section 3.4.16.[4] Temporary (e.g., work and staging areas) or construction of permanent storage facilities associated with these barriers could be potentially incompatible with land designations for General Agriculture or Resource Conservation in San Joaquin County along with Agriculture Lands Policy 5 and Open Space Policies 3, 4, 6, and 13; land designated by the City of Lathrop as Recreation Residential and Public (Schools, Parks, & Open Space); Sacramento County Policy OS-1 and land designations for Natural Preserve, Agricultural Cropland; and potentially other policies and designations identified above, depending on barrier design and selection of locations.

To address the illegal harvest of covered species across the study area, CM17 would provide funds to hire and equip 22 additional staff, including 17 game wardens, to increase enforcement of fishing regulations. To the degree that these staff would require the construction of additional office space, storage areas, or vehicle parking areas on lands not currently designated by local entities for such uses, the measure could be potentially incompatible with land use designations or policies identified above.

Under CM18, a new conservation hatchery would be developed by USFWS to support delta and longfin smelt populations. The facility as planned would consist of two sites: a science-oriented genetic refuge and research facility on the edge of the Sacramento River, and a larger supplementation production facility nearby. These facilities are anticipated to be located in the vicinity of the City of Rio Vista; their construction and long-term operation would create the potential for temporary or permanent incompatibilities with the city's general plan land use designations, goals, and policies. However, these facilities would potentially be on land designated as Army Base Reuse Area and Industrial/Employment District – General; thus, incompatibilities are not anticipated. This measure would also fund the expansion of the University of California (UC) Davis Fish Conservation and Culture Laboratory, near Byron, California. Expansion of the existing facility could be potentially incompatible with Contra Costa County land use designations for Agricultural Lands or Delta Recreation.

CM19 would further existing efforts to reduce loads of toxic contaminants in stormwater and urban runoff throughout the Delta. Activities associated with implementation of this measure could include the construction of retention or irrigation holding ponds for the capture and irrigation use of stormwater, establishment of vegetated buffer strips to slow runoff velocities, construction of bioretention systems, among other features whose construction or long-term functions would occur upon lands deemed for other uses by local entities. Based upon the potentially wide geographic scope of this measure, any incompatibilities with land use designations or policies would not be known until locations for these facilities are chosen. However, the placement of the physical features

[4] As described in Chapter 1, *Introduction*, Section 1.1, the full Draft EIR/EIS should be understood to include not only the EIR/EIS itself and its appendices but also the proposed BDCP documentation including all appendices.

proposed under this measure could be potentially incompatible with general plan land use designations or policies identified above.

Implementation of CM20 would include the provision of wash stations with sufficient cleaning abilities to kill aquatic invasives on watercraft, trailers, and other equipment leaving water bodies within California that are infested with zebra or quagga mussels. Wash stations will be strategically placed at boat ramps of each water body and owners will be encouraged to clean their watercraft and trailers upon leaving the water body. Additionally, this measure would fund inspection stations on roads at California borders that currently do not have inspection stations. Locations of these stations would include Needles Highway southbound; Highway 95 southbound at Arrowhead Junction; State Route 95, southbound at Needles Bridge; Havasu Lake Road near the west shore of Lake Havasu; Highway 95 at Vidal Junction; Agnes Wilson Bridge westbound; and Highway 95 southbound north of Blythe. Semi-permanent inspection stations will be established and operated on busy boat traffic days. While specific locations of these facilities are unknown at this point, they could be potentially incompatible with land use designations or policies identified above.

CM21 would address nonproject irrigation diversions to reduce the entrainment of covered fish species in the Delta. Activities associated with this measure would likely include installation of or improvements to fish screens; voluntary alteration of daily and seasonal diversion timing; and physical removal, relocation, consolidation, and modification of diversions. Removing or modifying the location of these structures could be incompatible with land designations for agricultural uses throughout the study area, at least on a temporary basis. Alterations to diversions could create indirect incompatibilities with land use designations or policies as identified in regional, county, and city plans, particularly with respect to agricultural lands and lands dedicated to waterfowl rearing. To the extent that such incompatibilities would result in a physical consequence on the environment, these potential effects are described further in Chapter 14, *Agricultural Resources* and Chapter 12, *Terrestrial Biological Resources*.

Any conservation measure requiring construction activities (e.g., establishment of storage, staging and stockpiling areas; grading; levee removal/replacement) could be potentially incompatible with land use designations or policies identified above for the duration of those activities.

Because the locations for the implementation of these conservation measures are not known at this point, a definitive conclusion about the compatibility of this alternative with local land use designations, goals, and policies cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibility with local land use regulations due to the amount of land area targeted for restoration actions. Because most activities would be anticipated to take place on land designated for agriculture, open space, natural preserve and recreation, local designations, goals, and policies related to preservation of those attributes would be most affected. As mentioned above, activities such as restoration of tidal habitat, seasonally inundated floodplain, riparian habitat, grassland and nontidal freshwater marsh could be incompatible with general plan policies to preserve agricultural land uses and farmland soils, including Contra Costa Policies 8-2, 8-29 and 8-33, Sacramento County Policy AG-5, San Joaquin County Agricultural Lands Policy 5, Solano County Policies AG.P-4 and AG.P-28, and Yolo County Policies AG-1.4, AG-1.5, AG-1.6, AG-2.10, and AG-6.1. However, those same activities could be compatible with and supportive of numerous general plan policies for open space, natural preserve, natural resources or recreation, including Alameda County ECAP Policy 53, Contra Costa Policies 3-64, 8-9, 8-17, 8-84 and 8-93, Sacramento County Policy AG-15, OS-1 and OS-2, San Joaquin County Open Space Policy 4, and Solano County

Policies RS.P-1, RS.P-2, RS.P-3, RS.P-4, RS.P-5, RS.P-7, RS.P-8, RS.P-9, RS.P-10, RS.P-11, and RS.P-12. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

***CEQA Conclusion*:** Because the locations for the implementation of these conservation measures are not known at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues, therefore, will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: Existing land uses in the CZs are predominantly agricultural, open space, or rural residential with some small inclusions of commercial and industrial areas, as previously described. Land uses within the boundaries of incorporated cities vary considerably in the study area but predominantly include areas dedicated to residential, commercial, and industrial areas. While the location of each restoration and/or enhancement action is not known at this time, it is possible that implementing these conservation measures and associated restoration and enhancement actions may result in temporary (e.g., construction activities that may conflict with land designated as open space) or permanent (e.g., displacement of existing residents and removal of existing structures) physical conflicts with existing land uses in or immediately adjacent to the study area.

Restoration of tidal habitat, riparian areas, nontidal perennial aquatic habitat, nontidal perennial freshwater emergent wetland, grasslands, and vernal pool complexes, protecting and enhancing alkali seasonal wetland complexes, and managing agricultural lands for optimal habitat use may conflict with existing agricultural and rural residential land uses in the Cache Slough Restoration Opportunity Area (ROA) in CZ 1, and in southeastern Solano and Yolo Counties depending on the location of each activity. Similarly, restoring riparian habitat and managing agricultural lands for optimal habitat use may conflict with existing agricultural and rural and suburban residential, as well as commercial and light industrial land uses in various locations within CZ 3 in Sacramento County. Activities associated with restoration of tidal habitat perennial aquatic/tidal brackish emergent wetland, riparian areas, nontidal perennial aquatic habitat, and nontidal perennial freshwater emergent wetland areas of San Joaquin, Alameda, and Contra Costa Counties and managing agricultural lands for optimal habitat use, restoring vernal pool complexes, or protecting and enhancing alkali seasonal wetland complexes in CZs 5–10 of these counties may conflict with existing agricultural and other land uses depending on the locations of these activities. Activities associated with restoration of tidal habitat, were it to occur within the Stone Lakes National Wildlife Refuge, would be compatible with existing land uses. Restoration of tidal perennial aquatic/tidal brackish emergent wetland, riparian areas, nontidal perennial aquatic habitat, nontidal perennial freshwater emergent wetland, grasslands, and vernal pool complexes, and protecting and enhancing alkali seasonal wetland complexes in the Suisun Marsh are not likely to conflict with any existing land uses because that area is already managed toward these goals.

Without more site-specific information about the locations and types of restoration to be implemented, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility, nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of any facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: The areas in which restoration actions are planned would be primarily natural or agricultural areas. Without more site-specific information about the locations and types of restoration to be implemented at those locations, no definitive conclusion can be made about the potential for restoration actions to result in the physical division of an existing community. In general, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities. To the extent that conservation areas are anticipated to create conflicts with community functionality and land use guidance, these effects are captured by and described under Impact LU-4: *Incompatibility with applicable land use designations, goals, and policies as a result of implementing the proposed Conservation Measures 2–21*. In areas and land use designations that focus on agricultural production, the potential exists for restoration actions to isolate agricultural areas from the communities that provide services and markets to those farmers; however, such an effect would not be considered to divide an existing community. Temporary and permanent effects on agricultural resources are discussed in Chapter 14, *Agricultural Resources*. Effects related to dividing an existing community as a result of the implementation of these conservation measures would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.3 Alternative 1B—Dual Conveyance with East Alignment and Intakes 1–5 (15,000 cfs; Operational Scenario A)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Alternative 1B would construct permanent and temporary features upon lands guided by state and regional policies and plans, as well as the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties, along with the City of Stockton. Constructing Alternative 1B would require activities that would be incompatible with many of the land use designations, goals, and policies ascribed to the study area in the general plans of these jurisdictions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Alternative 1B includes several short culvert siphon and tunnel siphon segments. Because these are subsurface components, there would be no permanent adverse physical effects on or incompatibilities with land use; similarly, conveyance pipelines would not result in a permanent land surface change, and therefore there would be no direct incompatibilities with existing land use designations. As such, potential permanent incompatibilities with existing land uses as they pertain to the proposed tunnel segments, culvert siphons, and pipelines are not discussed further.

Table 13-6 displays the temporary and permanent structures associated with the water conveyance facility, the local land designations on which they would occur, and the number of acres that would be affected. Mapbook Figure M13-2 displays relevant generalized land use designations where they could overlap with proposed water conveyance structures and temporary work areas. Note that not all of these structures would be built under any individual alternative. For further description of the locations of various structures, please refer to Chapter 3, *Description of Alternatives*.

Table 13-6. Water Conveyance Incompatibilities with Land Use Designations under Alternative 1B (acres)

	Alameda County				City of Stockton									Contra Costa County						Sacramento County								San Joaquin County				
Surface Feature	Agriculture	Commercial	Public	Residential	Administrative Professional	Commercial	Institutional	Low Density Residential	Medium Density Residential	Parks and Recreation	Residential Estate	Village	Open Space / Agriculture	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	City	Elementary School	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Bridge																				48		6		1				1	136	11	
Canal																				1,595		32		9					4,892	73	
Forebay														141	526		26	159	0												
Intake																				267	1		3	7	54						
Potential Borrow and/or Spoil							209					437								455				13				0	7,400	55	
Potential Borrow Area																				1,456				7							
Potential Spoil Area	205	1	7	4										406				1											158	4	
Pumping Plant (intermediate)																													68		
Siphon																				13				7					131	2	
Transmission Line	2	0	1	0										7		1		6	0	16				2					13	17	0
Reusable Tunnel Material Area																													437	1	
Subtotal Permanent	**207**	**1**	**8**	**4**			**209**					**437**		**554**	**526**	**1**	**26**	**166**	**0**	**3,850**	**1**	**38**	**3**	**46**	**54**			**1**	**13,235**	**163**	**0**
Access Road Work Area												0		0				6											0	1	
Barge Unloading Facility																													14	12	
Bridge / Control Work Area																													27		
Bridge Work Area																				69				2					162	3	
Canal Work Area																													25	1	
Concrete Batch Plant				0										2						4									29		
Control Structure Work Area														1				3													
Fuel Station	1			1										0						4									6		
Intake Work Area																				460	2	2	0	9	82	0					
Pipeline Work Area																				106											
Pumping Plant Work Area																													47		
Railroad Work Area																													41		
Road Work Area														0				1													
Siphon Work Area																				78				53					517	280	
Transmission Line	2	0	1	0	3	2	16	6	1	2	6		18	6		1		9	0	8				1	0		0		79	20	
Tunnel Work Area																				47									158	25	
Subtotal Temporary	**3**	**0**	**1**	**1**	**3**	**2**	**16**	**6**	**1**	**2**	**6**	**0**	**18**	**9**		**1**		**19**	**0**	**776**	**2**	**2**	**0**	**65**	**82**	**0**	**0**		**1,105**	**342**	**0**
Grand Total	**210**	**1**	**9**	**5**	**3**	**2**	**225**	**6**	**1**	**2**	**6**	**437**	**18**	**563**	**526**	**2**	**26**	**185**	**0**	**4,626**	**3**	**40**	**3**	**111**	**136**	**0**	**0**	**1**	**14,340**	**505**	**0**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines.
Acreages are rounded; acreage less than 0.5 has been rounded to 0.

State and Regional Plan Policies

Under Alternative 1B, construction activities associated with the features listed in Table 13-6 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council draft Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. With regard to Policy ER P3, construction of water conveyance facilities could occur on priority habitat restoration areas identified in Delta Plan Figure 4-4. Impacts to the opportunity for habitat restoration must be "avoided or mitigated" under this policy. Specifically, a segment of canal, along with associated features including a bridge, transmission lines, and spoil areas could occur on the Cosumnes/Mokelumne Confluence Priority Habitat Restoration Area, which would exclude the potential for these lands to be restored. Similarly, areas identified for the acquisition of borrow material and/or the deposition of spoils could be incompatible with the Lower San Joaquin River Floodplain Priority Habitat Restoration Area. While the potential for restoration of these lands would be affected, activities associated with BDCP CM3–CM11 would reduce these effects by restoring or permanently protecting other areas that could have been restored at the site(s) affected. As noted under Alternative 1A, Impact LU-4, priority habitat restoration areas substantially coincide with the restoration opportunity areas identified for tidal natural communities under BDCP CM4. Therefore, implementation of this BDCP alternative would be considered compatible with this policy. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM1 would be considered compatible with Policy DP P2.

While construction and placement of some water conveyance facilities would occur within the boundary of the Stone Lakes NWR, they would be located on privately-owned, non-refuge lands. Therefore, CCP policies intended to protect wildlife habitat on refuge lands would not apply. Further discussion of the Stone Lakes NWR CCP is provided in Chapter 12, *Terrestrial Biological Resources*, under Impact BIO-186.

Alternative 1B may result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Intake structures require contact with water and cannot feasibly be set back from levees. Additionally, Land Use P-14 provides that agricultural lands converted to water impoundment may not result in seepage of water and that such conversions must mitigate associated risks and effects. While construction of Byron Tract Forebay under this alternative would potentially be incompatible with this policy, implementation of Mitigation Measure GW-5, Agricultural lands seepage minimization, in Chapter 7, *Groundwater*, would ensure compatibility with this policy. Incompatibilities could occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where

productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1.

These potential incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Under this alternative, indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If the construction and operation of water conveyance facilities under this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Sacramento County

Permanent surface features associated with water conveyance facilities that would be located in Sacramento County include five intake facilities (with associated setback levees, pumping plants, sedimentation basins, and solids lagoons), canal segments, six bridges, borrow and/or spoil areas, transmission lines, and a siphon. These features would result in the permanent conversion of land designated (and likely used) for Agricultural Cropland, Intensive Industrial, Low Density Residential, Medium Density Residential, Natural Preserve, and Recreation. The extent of these incompatibilities is summarized in Table 13-6. Construction of permanent water conveyance facility components on land designated as Agricultural Cropland would directly result in permanent land use changes that would preclude agricultural land uses in the future in this area and would result in the reduction of lands available for agricultural use (discussed further in Chapter 14, *Agricultural Resources*). The conversion of agricultural lands would be incompatible with the General Plan Agricultural Element goal of protecting and maintaining the productivity of agricultural lands. The conversion of agricultural lands also could be incompatible with general plan policies, including Policy AG-5, which requires acre-for-acre mitigation of conversions of more than 50 acres. Temporary project features in Sacramento County associated with the construction of the water conveyance facility would include two concrete batch plants, two fuel stations, transmission lines, and work areas for those features noted above. These incompatibilities associated with construction activities would occur on land designated under the Sacramento County General Plan as Agricultural Cropland, Intensive Industrial, Low Density Residential, Medium Density Residential, Natural Preserve, Recreation, and Commercial/Office. Under this alternative, then, it is anticipated that these uses would be temporarily converted to construction-related uses, as summarized by Table 13-6. Many of these features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated as Agricultural Cropland would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. This construction would be incompatible with general plan policies that protect agricultural lands and maintain the productivity of those lands, including Policy AG-5. In addition, portions of the Alternative 1B water conveyance facilities, including Intake 1, would be built within the Borges-Clarksburg Airport CLUP Overflight Zone, which contains territory in Sacramento and Yolo counties. Construction and facilities operations and maintenance activities have the potential to be incompatible with an Overflight Zone policy limiting congregations of people.

San Joaquin County

The footprint of water conveyance facilities constructed under Alternative 1B would be incompatible with land designated as Agriculture/General, Residential/Very Low Density, Elementary School, and Open Space/Resource Conservation in San Joaquin County primarily due to borrow and/or spoil areas, canal segments, RTM areas, bridges, siphons, transmission lines, and an intermediate pumping plant. The extent of these incompatibilities is summarized in Table 13-6. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described above and in Appendix 3B, *Environmental Commitments*. Conversion of agricultural lands would be incompatible with general plan policies, including Agricultural Land Policy 5, which reserves agricultural areas principally for crop production, ranching and grazing. Conversion of agricultural lands and project conflicts with the Agriculture land use are described in Chapter 14, *Agricultural Resources.* The placement of canals, where constructed over or adjacent to lands designated under the San Joaquin County General Plan as Open Space/Resource Conservation, would be incompatible with this land use designation and related Open Space Policies 3 and 4 because they would diminish the amount of land dedicated to open space and conservation of natural habitat and resources. Land use incompatibilities in the City of Stockton include potential borrow and/or spoil areas that could be placed on as many as 650 acres of land designated for Institutional and Village uses.

Temporary project features in San Joaquin County associated with the construction of water conveyance facilities would include a barge unloading facility, three concrete batch plants, three fuel stations, transmission lines, and various work areas for other water conveyance features. These features would occupy lands designated as Agriculture/General, Residential/Very Low Density, and Open Space/Resource Conservation, as shown in Table 13-6. Many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated under agricultural zones would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. Construction during this period would be incompatible with Agricultural Lands Policy 5, which reserves agricultural areas principally for crop production, ranching and grazing, and with Open Space Policies 3 and 4, which restrict development in open space resource areas.

Contra Costa County

Under Alternative 1B, permanent project water conveyance features in Contra Costa County would include Bryon Tract Forebay and associated water control structures, transmission lines, and a potential spoil area. These features would be constructed on lands designated Delta Recreation and Resources, Agricultural Lands, Public and Semi-Public, Parks and Recreation, Open Space, and Water. The extent of these anticipated land use incompatibilities is summarized in Table 13-6. Conversion of agricultural lands and project conflicts with the Agriculture land use designation are described in Chapter 14, *Agricultural Resources*. The conversion of agricultural land would be incompatible with general plan policies, including Policy 3-12, 8-2, 8-29, and 8-33. Construction of the 230 kV transmission line and associated towers could be incompatible with Policy 9-20, which requires that new power lines be located parallel to existing lines in order to minimize visual impacts. Constructing the forebay on lands within the Delta Recreation and Resources zone would be incompatible with the goals of the Contra Costa County General Plan related to this land use

designation and Policy 9-44, which focus on the preservation of land for recreation over the placement of new infrastructure.

A narrow area of land running through the proposed future location of Byron Tract Forebay is designated Public/Semi-Public. The Public/Semi-Public designation includes properties owned by public governmental agencies such as libraries, fire stations, and schools. This designation is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public/Semi-Public designation applies to properties owned by public agencies and privately owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation.

Temporary project features in Contra Costa County associated with the construction of the water conveyance facility would include fewer than 30 acres of work areas, transmission lines, and part of the footprint of a concrete batch plant and fuel station. These features would occupy lands designated Public/Semi-Public, Agriculture Lands, Open Space, and Water. As previously described, many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above, however they would occur over a shorter period of time.

Portions of Alternative 1B water conveyance facilities at Clifton Court Forebay would be built in areas covered by Byron Airport LUCP Zones B2, C1, and D. Construction and facilities operations and maintenance activities could be incompatible with policies that limit congregations of people, require ALUC review of tall objects, and prohibit aboveground bulk storage of hazardous materials.

Alameda County

Under Alternative 1B, the only potential permanent features proposed for Alameda County are a borrow/spoil area and transmission lines, which would be constructed on land designated for Agriculture, Commercial, Public, and Residential uses, as indicated in Table 13-6. Small sections (approximately 1.5 acres) of a fuel station and concrete batch plant, along with transmission lines, would comprise the potential temporary effects of this alternative on land use in Alameda County. These areas would be located on land designated for residential and agricultural uses, which would be incompatible with the designation and with ECAP policies, including Policy 71, which seeks to conserve farmland soils. Both permanent and temporary effects related to conversion of agricultural land are discussed in Chapter 14, *Agricultural Resources*.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Construction of water conveyance features associated with Alternative 1B would directly affect land use in the study area by temporarily converting land currently under agricultural land use and open space to temporary access roads, borrow and spoils areas and temporary work areas. These effects would be temporary with this land returning to agricultural use following construction.

Construction of water conveyance features associated with Alternative 1B would also directly affect land use in the study area by permanently converting land currently under agricultural land use and open space to permanent access roads, new bridges, pumping plants, control structures, canals, a new forebay, and footings for electrical transmission line towers. In addition, approximately 409 permanent structures would be removed or relocated within the water conveyance facility footprint under this alternative. This includes an estimate of 109 residential buildings. Other structures affected would consist primarily of storage or agricultural support facilities; however, several private recreational structures would also be affected. A segment of canal would also conflict with a fire station in the community of Hood. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-2 shows the distribution of these effects across the East conveyance alignment. The canal construction footprint is estimated to create conflicts with 168 structures, including 121 storage and support buildings and 36 residential structures. While these conflicts would be located throughout the canal alignment, larger clusters of affected structures would be located near the community of Hood, west of the community of Thornton, near Guard Road, and near North Holt Road. The physical footprints of intakes and intake pumping plant facilities, along with associated work areas, are anticipated to create disruptions with 98 structures in the vicinity of the east bank of the Sacramento River. Among the five intake sites, 38 residential structures would be affected. Borrow and spoil areas are estimated to conflict with 53 structures, including 13 residential structures. Bridges and associated work areas would disrupt 38 structures, including 13 residential buildings. The footprint of the proposed Byron Tract Forebay would also affect approximately 29 structures. These would be concentrated on the east side of the forebay near Old River and on the west side of the forebay near the approach channel to the California Aqueduct. Other features—including culvert siphons and siphon work areas, tunnel siphon work areas, and railroad work areas—would also create disruptions to existing structures.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

CEQA Conclusion: Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to

implementation of the BDCP). This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternative 1B, the construction of permanent facilities and associated work areas would be located in and around the community of Hood, in some cases displacing structures in the community and creating linear construction zones between the community and outlying areas. Intake 4 and its associated pumping plant, transmission lines, and access roads, would be constructed along the southern border of the community over a period of approximately 4 years. While access to the community from the south would continue with the construction of a temporary roadway, the point where this access occurs would change during this period. Construction of a segment of canal would run north to south in the eastern section of the community, while a bridge to reconnect Hood-Franklin Road over the canal would also be built. During construction of these project facilities, access would be limited between the community and points to the east. Additionally, construction and the long-term placement of Intake 3 (about one-half mile north of Hood) and the canal (running north to south) would substantially alter the lands surrounding Hood. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and the canal would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

CEQA Conclusion: Construction activities associated with Intake 4 and its associated facilities, the canal, and a bridge over the canal would limit access between the community of Hood and surrounding areas. Even though access to and from the community would be maintained over the long-term, the placement of Intake 4 and the canal, as well as the nearby construction of Intake 3, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be similar to those described under Alternative 1A. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities based on the location of the physical water conveyance features associated with each alternative. Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: Effects related to conflicts with existing land uses under this alternative would be similar to those described for Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities based on the location of the physical water conveyance features associated with each alternative. For example, land proposed for restoration under Alternative 1A could not serve such a purpose under Alternative 1B if a physical component of this alternative (i.e., a canal) were constructed over the same footprint. As with Alternative 1A, though, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be

made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under this alternative would be similar to those described for Alternative 1A. Because the locations for the implementation of these measures are unknown at this time, a definitive conclusion about this alternative's potential to divide an existing community cannot be made. However, effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.4 Alternative 1C—Dual Conveyance with West Alignment and Intakes W1–W5 (15,000 cfs; Operational Scenario A)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Alternative 1C would construct permanent and temporary structures on land covered by the general plans of Yolo, Solano, Sacramento, Contra Costa, and Alameda Counties, and the City of Oakley. Construction activities under Alternative 1C would create incompatibilities with many of the designated land uses identified by the general plans of these counties. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Alternative 1C includes several short culvert siphons and a long tunnel segment. Because these are subsurface components, there would be no permanent adverse physical effects on or incompatibilities with land use; similarly, conveyance pipelines would not result in a permanent land surface change, and accordingly, there would be no direct incompatibilities with existing land use designations. Thus, potential permanent incompatibilities with existing land uses as they pertain to the proposed tunnel segments, culvert siphons, and pipelines are not discussed further.

Table 13-7 displays the temporary and permanent structures associated with the water conveyance facility, the local land designations on which they would occur, and the number of acres that would be affected. Mapbook Figure M13-3 displays relevant generalized land use designations where they could overlap with proposed water conveyance structures and temporary work areas. For further description of the locations of various structures, please refer to Chapter 3, *Description of Alternatives*.

Table 13-7. Water Conveyance Incompatibilities with Land Use Designations under Alternative 1C (acres)

Surface Feature	Alameda County				City of Oakley											Contra Costa County									Sacramento County			Solano County			Yolo County	
	Agriculture	Commercial	Public	Residential	Agriculture Limited	Commercial	Commercial Recreation	Multi-Family Low	Parks and Recreation	Public and Semi-Public	Roads	Single-Family High	Single-Family Low	Single-Family Medium	Single-Family Very Low	Agricultural Core	Agricultural Lands	Commercial	Commercial Recreation	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Natural Preserve	Recreation	Agriculture	Specific Project Area	Water Bodies and Courses	Agriculture	Open Space
Bridge																41	44			0			10					26			35	
Canal	2	2	16	0						6			102			571	804			52			184					990			1,719	
Forebay																	10			763												
Intake																														241	37
Potential Borrow Area																	227			54								1,857			3,224	
Potential Spoil Area																536	306			531			11									
Shaft Location																	11	0		19	0			3	31		0	12				
Siphon										1			8			36	51			0			9					20			39	
Transmission Line																												69	8	1	34	
Reusable Tunnel Material Area																	400								334			181				
Subtotal Permanent	**2**	**2**	**16**	**0**						**7**			**110**			**1,184**	**1,853**	**0**		**1,419**	**0**		**214**	**3**	**365**		**0**	**3,155**	**8**	**1**	**5,292**	**37**
Access Road Work Area																	1						3					1			0	
Barge Unloading Facility																									7		7	48		6		
Bridge Work Area																80	66						0					109			52	
Canal Work Area																2	37						3									
Concrete Batch Plant																				50			2					49			4	
Control Structure Work Area																	14			5			30									
Forebay Work Area																				66				0								
Fuel Station																				2			2					2			4	
Highway Work Area																												17				
Intake Work Area																											0				506	63
Pipeline Work Area																															419	
Pumping Plant Work Area																												127				
Railroad Work Area																	234			0			33								7	
Road Work Area																															17	1
Safe Haven Work Area										0	0		7						2	11		4			32	0	0	7				
Siphon Work Area										19			33	7		199	279			46			64	10				111		7	283	
Transmission Line					0	1	1	1	1	1	0	1	3	3		8	21	4		27	7	1	0	1	54	3	4	84	4	1	12	11
Tunnel Work Area					1					37			54	127	24								0									
Subtotal Temporary					**1**	**1**	**1**	**1**	**1**	**57**	**0**	**1**	**97**	**137**	**24**	**289**	**652**	**4**	**2**	**207**	**7**	**5**	**137**	**11**	**93**	**3**	**11**	**555**	**4**	**14**	**1,304**	**75**
Grand Total	**2**	**2**	**16**	**0**	**1**	**1**	**1**	**1**	**1**	**64**	**0**	**1**	**207**	**137**	**24**	**1,473**	**2,505**	**4**	**2**	**1,626**	**7**	**5**	**351**	**14**	**458**	**3**	**11**	**3,710**	**12**	**15**	**6,596**	**112**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

State and Regional Plan Policies

Under Alternative 1C, construction activities associated with the features listed in Table 13-7 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and in the Delta Stewardship Council Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. Additionally, because CM1 activities would occur outside of priority habitat restoration areas as identified by the Delta Plan, ER P3 would not apply. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will fulfill this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM1 would be considered compatible with Policy DP P2.

Alternative 1C may also result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Intake structures require contact with water and cannot feasibly be set back from levees. Additionally, Land Use P-14 provides that agricultural lands converted to water impoundment may not result in seepage of water and that such conversions must mitigate associated risks and effects. While construction of Byron Tract Forebay under this alternative would potentially be incompatible with this policy, forebay design, as well as implementation of Mitigation Measure GW-5, Agricultural lands seepage minimization, in Chapter 7, *Groundwater*, would establish compatibility with this policy. Incompatibilities could occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1.

These potential incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Under this alternative, indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If the construction and operation of water conveyance facilities under this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Yolo County

Permanent surface features associated with water conveyance facilities that would be located in Yolo County include five intakes, setback levees, intake pumping plant facilities (including sedimentation basins, solids lagoons), canals, a control structure, bridges, borrow areas, permanent access roads, a segment of the new 230 kV transmission line and towers, and 69 kV transmission lines tying into each intake pumping plant. These features would result in the permanent conversion of land designated under the Yolo County General Plan for agricultural and open space uses and lying within Delta Protection and Agricultural District overlays. These incompatibilities are summarized by Table 13-7. Construction of permanent water conveyance facility components on land designated for agriculture would directly result in permanent land use changes that would preclude agricultural land uses in the future in this area and would result in the reduction of lands available for agricultural use (discussed further in Chapter 14, *Agricultural Resources*).

Temporary project features in Yolo County associated with the construction of the water conveyance facilities under Alternative 1C would include temporary access roads, work and staging areas, transmission lines, and spoils and/or "borrow then spoils" areas. These incompatibilities are summarized by Table 13-7. Temporary features would be in place for a period of nine or more years during near-term implementation or the nine-year construction period for CM1. Nonetheless, land designated for agricultural use would be taken out of production for a minimum of nine years, as described in Chapter 14, *Agricultural Resources.* This disruption would be incompatible with the Agricultural and Open Space land use designations and with general plan policies, including Policies LU-3.5, AG-1.4, and AG-1.5, during that period.

Portions of the Alternative 1C water conveyance facilities, including Intake 1, would be built within the Borges-Clarksburg Airport CLUP Overflight Zone, which contains territory in Yolo and Sacramento counties. Construction and facilities operations and maintenance activities have the potential to be incompatible with an Overflight Zone policy limiting congregations of people.

Solano County

Construction of water conveyance features associated with Alternative 1C would result in the permanent conversion of land designated jointly for agricultural uses and within a Resource Conservation overlay in Solano County primarily due to the construction of canals, bridges, permanent access roads, an intermediate pumping plant, tunnel shafts, and borrow areas. Transmission lines would also be constructed on land designated as a Specific Project Area dedicated primarily to general industrial uses (Lambie Industrial Park). These incompatibilities are summarized by Table 13-7. Conversion of agricultural lands and project conflicts with agriculture land uses are described in Chapter 14, *Agricultural Resources.* The placement of facilities, where constructed over or adjacent to lands designated under the Solano County General Plan as Resource Conservation, would be incompatible with this land use designation because they would diminish the amount of land dedicated to open space and conservation of natural habitat and resources. Construction of the facilities would also be incompatible with general plan policies, including Policies RS.P-1, RS.P-5, RS.P-7, RS.P-8 and RS.P-21.

Temporary project features associated with the construction of water conveyance facilities in Solano County would include temporary access roads, barge unloading facilities, concrete batch plant, fuel station, work and staging areas, and transmission lines. These features would occupy lands designated for agricultural and resource conservation uses and are summarized by Table 13-7. Many of these temporary features would likely be in place for the first nine or more years of project implementation

(i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated under agricultural zones would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above, only for a shorter duration.

Sacramento County

Permanent surface features associated with water conveyance facilities that would be in Sacramento County under Alternative 1C include tunnel shafts and RTM areas. These features would result in the permanent conversion of land designated under the Sacramento County General Plan as Agricultural Cropland and less than an acre designated for recreational use. These incompatibilities are summarized by Table 13-7. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments.* Construction of permanent water conveyance facility components on land designated as Agricultural Cropland would directly result in permanent land use changes that would preclude agricultural land uses in the future in this area and would result in the reduction of lands available for agricultural use (discussed further in Chapter 14, *Agricultural Resources*). The construction of permanent facilities would be incompatible with general plan policies, including Policy AG-5.

In addition to the Agricultural Cropland designation, there are areas within Sacramento County encompassed by the study area designated under the general plan as Natural Preserve; however, this area is confined to subsurface crossings, where no land use incompatibilities would occur.

Temporary project features in Sacramento County associated with the construction of the water conveyance facility would include temporary access roads, barge unloading facilities, transmission lines, and work and staging areas. These incompatibilities are summarized by Table 13-7. Many of these features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated as Agricultural Cropland would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. The temporary conversion of Agricultural Cropland would be incompatible with general plan policies, including Policy AG-5.

Contra Costa County

Under Alternative 1C, permanent project water conveyance features in Contra Costa County would include Bryon Tract Forebay and associated water control structures, canal segments, bridges, tunnel shafts, RTM areas, borrow areas, spoils areas, siphons, and permanent access roads. These features, would be constructed on lands designated under the Contra Costa County General Plan as Delta Recreation and Resources, Commercial, Agricultural Lands, and Agricultural Core. These incompatibilities are summarized by Table 13-7. Conversion of agricultural lands and project conflicts with agricultural-related uses are described in Chapter 14, *Agricultural Resources* while effects on and conflicts with recreational resources are discussed further in Chapter 15, *Recreation*. The conversion of designated Agricultural Lands would be incompatible with general plan policies that preserve agricultural areas, including Policies 3-12, 8-2, 8-29, and 8-33. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*.

Constructing structures on lands within the zones dedicated to recreation would be incompatible with the goals of the Contra Costa County General Plan related to this land use designation, which focuses on the preservation of land for recreation over the placement of new infrastructure. The construction also would be incompatible with general plan policies, including Policy 9-44, which calls for protecting and enhancing Delta recreational values.

A canal segment proposed as part of Alternative 1C would cross land designated for Public/Semi-Public uses. The Public/Semi-Public designation includes properties owned by public governmental agencies such as libraries, fire stations, schools, etc. This designation is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public/Semi-Public designation applies to properties owned by public agencies and privately owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation.

A canal segment may also cross land designated for Open Space. Conversion of this land would be incompatible with the Open Space designation, which permits only resource management, recreation or the establishment of safety zones; however, this use would also fall under the exemption available to water facility uses.

Portions of Alternative 1C water conveyance facilities at Clifton Court Forebay would be built in areas covered by Byron Airport LUCP Zones B1, B2, C1, and D. Construction and facilities operations and maintenance activities could be incompatible with policies that limit congregations of people, require ALUC review of tall objects, and prohibit aboveground bulk storage of hazardous materials.

Permanent features, including a segment of canal and a culvert siphon, would also be incompatible with land governed by the City of Oakley, including more than 100 acres of land designated for residential uses. These incompatibilities are also summarized in Table 13-7.

Temporary project features in Contra Costa County associated with the construction of the water conveyance facility would include temporary access roads, work and staging areas, concrete batch plants, fuel stations, and transmission lines. These features would occupy land designated Delta Recreation and Resources, Public/Semi-Public, Commercial, Commercial Recreation, Open Space, Parks and Recreation, and agricultural use (Agriculture Core and Agricultural Lands). As previously described, many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above, however they would occur over a shorter period of time.

Temporary features, including transmission lines and work areas for siphon and tunnel construction, would also be incompatible with land designated for residential, agricultural, commercial, commercial, recreational, and public and semi-public uses in the City of Oakley. These incompatibilities are summarized in Table 13-7.

Alameda County

Under Alternative 1C, permanent project water conveyance features would be constructed on about 20 acres of land designated for Agriculture, Commercial, Public, and Residential uses. These incompatibilities are summarized by Table 13-7. Conversion of agricultural lands and project conflicts with agricultural-related uses are described in Chapter 14, *Agricultural Resources.* This change in land use would be incompatible with ECAP policies including Policy 71, which seeks to conserve farmland soils.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Construction of water conveyance features associated with Alternative 1C would directly affect land use in the study area by temporarily converting land currently under agricultural land use and open space to temporary access roads, borrow and spoils areas, and temporary work areas. These effects would be temporary with this land returning to agricultural use following construction.

Construction of water conveyance features associated with Alternative 1C would also directly affect land use in the study area by permanently converting land currently under agricultural land use and open space to permanent access roads, new bridges, pumping plants, control structures, canals, a new forebay, and footings for electrical transmission line towers. In addition, approximately 726 permanent structures would be removed or relocated within the water conveyance facility footprint under this alternative. This includes an estimated 194 residential buildings. Other structures affected would consist primarily of storage or agricultural support facilities; however, a number of private recreational structures would also be affected. Table 13-3 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-3 shows the distribution of these effects across the West conveyance alignment. The canal construction footprint is estimated to create conflicts with 232 structures, including 161 storage and support buildings and 51 residential structures. While these conflicts would be located throughout the canal alignment, the affected structures would be concentrated in the southern portion of the canal alignment, east of the Byron Highway between Knightsen and the proposed Byron Tract Forebay. Borrow and spoil areas are estimated to conflict with 107 structures, including 33 residential structures. RTM areas would conflict with 105 structures, including 23 residential structures. These effects would be primarily created by an RTM area east of the community of Knightsen. The physical footprints of intakes and intake pumping plant facilities, along with associated work areas, are anticipated to create disruptions with 89 structures in the vicinity of the east bank of the Sacramento River. Among the five intake sites, 35 residential structures would be affected. Siphons and siphon work areas would disrupt 85 structures, including 18 residential buildings. Bridges and associated work areas would disrupt 35 structures, including 17 residential buildings. Other features—including barge unloading facilities, tunnel shaft sites, and work areas for construction of control structures, pipelines, road and railroad work, safe haven zones, and tunnels—would also create disruptions to existing structures.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effect related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternative 1C, the construction of permanent facilities and associated work areas would be located around the community of Clarksburg, creating linear construction zones between the community and outlying areas. Intakes 1 and 2 (along with their associated pumping plants, transmission lines, and access roads) and segments of conveyance pipeline would surround the community on the north, west, and south. Construction activities associated with the intakes would last approximately four years. While access to the community from the north and the south would continue with the construction of temporary roadways, access from the west would be disrupted during construction of conveyance pipeline. The long-term placement of Intake 2 (adjacent to the south) and Intake 1 (approximately one mile north) would substantially alter the lands surrounding Clarksburg. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create linear construction areas for a period of time. Additionally, the lasting placement of the intake facilities would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

CEQA Conclusion: Construction activities associated with Intakes 1 and 2, their associated facilities, and segments of conveyance pipeline would be located around the community of Clarksburg. Even though access to and from the community would be maintained over the long-term, the placement of Intake 2, as well as the nearby construction of Intake 1, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be similar to those described under Alternative 1A. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities based on the location of the physical water conveyance features associated with each alternative. Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under this alternative would be the same as those described for Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under this alternative would be the same as those described for Alternative 1A. Because the locations for implementation of these conservation measures are unknown at this time, a conclusion about the potential for this alternative to divide an existing community cannot be made. However, effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.5 Alternative 2A—Dual Conveyance with Pipeline/Tunnel and Five Intakes (15,000 cfs; Operational Scenario B)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 2A would be similar to those described for Alternative 1A. Under Alternative 2A, however, locations chosen for two intakes could differ from those options presented for Alternative 1A. Additionally, an operable barrier would be constructed at the head of Old River, which would be expected to include a temporary work area less than 1 acre and an area of about 5 acres dedicated to the footprint of the barrier and transmission lines. These features would affect an area designated as Open Space/Resource Conservation in San Joaquin County and could potentially affect lands designated for low-density residential uses in the city of Lathrop. If Intakes 6 and 7 were chosen, incompatibilities with land use designations would be as summarized in Table 13-8. For further reference about the location of all potential intakes that could be constructed under this alternative, please refer to Chapter 3, *Description of Alternatives*.

Table 13-8. Water Conveyance Incompatibilities with Land Use Designations under Alternative 2A (acres)

	Alameda County				Contra Costa County						Sacramento County							San Joaquin County[1]		
Surface Feature	Agriculture	Commercial	Public	Residential	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Forebay					141	526		26	160	2	1,002									
Intake											259					54				
Potential Borrow Area											584				0					
Potential Spoil Area	205	1	7	4	406				1											
Shaft Location											82					0		199	66	
Transmission Line	2	0	1	0	7	12	1		6	1	110	1		1	3	9	1	98	28	0
Reusable Tunnel Material Area											695							887	14	
Subtotal Permanent	**207**	**1**	**8**	**4**	**554**	**538**	**1**	**26**	**167**	**3**	**2,732**	**1**	**0**	**1**	**3**	**63**	**1**	**1,184**	**108**	**0**
Access Road Work Area					0				6											
Barge Unloading Facility											27					5		42	99	
Concrete Batch Plant				0	2						44							40		
Control Structure Work Area					1				3											
Fuel Station	1			1	0						6							2		
Intake Work Area											531					87				
Pipeline											66									
Pipeline Work Area											568		25		12					
Road Work Area					0				1											
Safe Haven Work Area						11					37				0	0		68	1	
Transmission Line	1	0	1	0	5	11	0		7	1	116	0	0	0	2	1	1	83	47	0
Tunnel Work Area											69							62		
Subtotal Temporary	**2**	**0**	**1**	**1**	**8**	**22**	**0**	**0**	**17**	**1**	**1,464**	**0**	**25**	**0**	**14**	**93**	**1**	**297**	**147**	**0**
Grand Total	**209**	**1**	**9**	**5**	**562**	**560**	**1**	**26**	**184**	**4**	**4,196**	**1**	**25**	**1**	**17**	**156**	**2**	**1,481**	**255**	**0**

[1] Impact estimates exclude the potential construction of an operable barrier at the head of Old River. See the impact discussion above for further detail.

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines.

Acreages are rounded; acreage less than 0.5 has been rounded to 0.

Like Alternative 1A, Alternative 2A would place temporary and permanent structures on lands designated for other uses by the general plans of Yolo, Sacramento, San Joaquin, Contra Costa, and Alameda Counties. The construction of the water conveyance facilities would create incompatibilities with many of the land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under this alternative would be similar to those described for Alternative 1A. However, potential variation in the severity of these effects would result from two potentially different intake locations (Intakes 6 and 7 instead of Intakes 4 and 5). The construction of an operable barrier at the head of Old River would not be anticipated to directly conflict with any existing structure. Selection of Intakes 6 and 7 instead of Intakes 4 and 5 would be anticipated to disrupt approximately 18 more structures including an estimated 11 more residential structures. Table 13-3 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment. As for Alternative 1A, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

CEQA Conclusion: Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of

hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 2A would be similar to those described for Alternative 1A. Construction of permanent facilities and associated work areas would be located in and around the community of Hood, in some cases displacing structures in the community and creating linear construction zones between structures within the community. Intake 4, if built under this alternative, would be constructed along the southern border of the community over a period of approximately four years, altering a point of access to the community. Work areas associated with construction of the conveyance pipeline carrying water from Intake 3 to the intermediate forebay would run north to south in the eastern section of the community. While a permanent physical division within the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and intermediate forebay would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

CEQA Conclusion: During the construction of the conveyance pipeline between Intake 3 and the intermediate forebay, construction activities would cross the community of Hood, limiting access between some of the community's easternmost structures and the main section of the community. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same for Alternative 2A as those described under Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility for this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 2A would be similar to those described for Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. Without more site-specific information about the locations and types of restoration to be implemented, no definitive conclusion can be made; however, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to

implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 2A would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.6 Alternative 2B—Dual Conveyance with East Alignment and Five Intakes (15,000 cfs; Operational Scenario B)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Land use incompatibility resulting from the construction of water conveyance facilities under Alternative 2B would be similar to those described for Alternative 1B. Under this alternative, however, locations chosen for two intakes could differ from those options presented for Alternative 1B. Additionally, an operable barrier would be constructed at the head of Old River, which would be expected to include a temporary work area less than 1 acre and an area of about 5 acres dedicated to the footprint of the barrier and transmission lines. These features would affect an area designated as Open Space/Resource Conservation in San Joaquin County and could potentially affect lands designated for low-density residential uses in the city of Lathrop. If Intakes 6 and 7 were chosen, incompatibilities with land use designations would be as summarized in Table 13-9.

Conveyance pipelines and associated work areas could add to the list of features potentially incompatible with Stone Lakes NWR CCP policies. Further discussion of the Stone Lakes NWR CCP is provided in Chapter 12, *Terrestrial Biological Resources*, under Impact BIO-186. For further reference about the location of all potential intakes that could be constructed under this alternative, please refer to Chapter 3, *Description of Alternatives*.

Like Alternative 1B, Alternative 2B would construct permanent and temporary features upon lands covered by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. These structures would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Table 13-9. Water Conveyance Incompatibilities with Land Use Designations under Alternative 2B (acres)

	Alameda County				City of Stockton									Contra Costa County						Sacramento County				San Joaquin County[1]				
Surface Feature	Agriculture	Commercial	Public	Residential	Administrative Professional	Commercial	Institutional	Low Density Residential	Medium Density Residential	Parks and Recreation	Residential Estate	Village	Open Space / Agriculture	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Low Density Residential	Natural Preserve	Recreation	City	Elementary School	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Bridge																				48	6	1			1	136	11	
Canal																				1,595	32	9				4,892	73	
Forebay														141	526		26	159	0								
Intake																				259			54					
Potential Borrow and/or Spoil							209					437								455		13			0	7,400	55	
Potential Borrow Area																				1,456		7						
Potential Spoil Area	205	1	7	4										406				1								158	4	
Pumping Plant (intermediate)																										68		
Siphon																				13		7				131	2	
Transmission Line	2	0	1	0										7		1		6	0	29		3	3			13	17	0
Reusable Tunnel Material Area																										437	1	
Subtotal Permanent	**207**	**1**	**8**	**4**			**209**					**437**		**554**	**526**	**1**	**26**	**166**	**1**	**3,855**	**38**	**40**	**57**		**1**	**13,235**	**163**	**0**
Access Road Work Area																										0	1	
Barge Unloading Facility																										14	12	
Bridge / Control Work Area																										27		
Bridge Work Area																				69		2				162	3	
Canal Work Area																										25	1	
Concrete Batch Plant														2						4						29		
Control Structure Work Area														1				3										
Fuel Station	1			1																4						6		
Intake Work Area																				489			89					
Pipeline Work Area																				605		42						
Pumping Plant Work Area																										47		
Railroad Work Area																										41		
Road Work Area														0				1										
Siphon Work Area																				78		53				517	280	
Transmission Line	2	0	1	0	3	2	16	6	1	2	6		18	6		1		9	0	11		1	0	0		79	20	0
Tunnel Work Area																				47						158	25	
Subtotal Temporary	**3**	**0**	**1**	**1**	**3**	**2**	**16**	**6**	**1**	**2**	**6**		**18**	**9**		**1**		**13**	**0**	**1,307**		**98**	**89**	**0**		**1,105**	**342**	**0**
Grand Total	**210**	**1**	**9**	**5**	**3**	**2**	**225**	**6**	**1**	**2**	**6**	**437**	**18**	**563**	**526**	**2**	**26**	**179**	**1**	**5,162**	**38**	**138**	**146**	**0**	**1**	**14,340**	**505**	**0**

[1] Impact estimates exclude the potential construction of an operable barrier at the head of Old River. See the impact discussion above for further detail.

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines.
Acreages are rounded; acreage less than 0.5 has been rounded to 0.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 2B would be similar to those described for Alternative 1B. However, potential variation in the severity of these effects would result from potentially different intake locations. The construction of an operable barrier at the head of Old River would not be anticipated to directly conflict with any existing structure. If Intakes 6 and 7 were constructed instead of Intakes 4 and 5, approximately 22 more structures would be disrupted including approximately 12 more residential structures. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-2 shows the distribution of these effects across the East conveyance alignment. As for Alternative 1B, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 2B would be similar to those described for Alternative 1B. Construction of Intake 4 (if it were built under this alternative), a segment of canal, a bridge, and associated work areas would be located in close proximity of the community of Hood, in some cases displacing structures in the community and creating linear construction zones between the community and outlying areas. During construction of these project facilities, access would be limited between the community and points to the east. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and the canal would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to reduce this effect.

CEQA Conclusion: Construction activities associated with Intake 4 and its associated facilities, the canal, and a bridge over the canal would limit access between the community of Hood and surrounding areas. Even though access to and from the community would be maintained over the long-term, the placement of Intake 4 and the canal, as well as the nearby construction of Intake 3, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same under Alternative 2B as those described under Alternative 1B. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section

13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 2B would be the same as those described for Alternative 1B because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1B, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under this alternative would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.7 Alternative 2C—Dual Conveyance with West Alignment and Intakes W1–W5 (15,000 cfs; Operational Scenario B)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibilities with local land use plans under Alternative 2C would be similar to those described for Alternative 1C. Alternative 2C would construct permanent and temporary water conveyance structures on land governed by the general plans of Yolo, Solano, Sacramento, Contra Costa, and Alameda Counties, along with the City of Oakley. Additionally, an operable barrier would be constructed at the head of Old River, which would be expected to include a temporary work area less than 1 acre and an area of about 5 acres dedicated to the footprint of the barrier and transmission lines. These features would affect an area designated as Open Space/Resource Conservation in San Joaquin County and could potentially affect lands designated for low-density residential uses in the city of Lathrop. Construction activities under Alternative 2C would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 2C would be identical to those described for Alternative 1C because the construction of an operable barrier at the head of Old River would not be anticipated to directly conflict with any existing structure. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-3 shows the distribution of these effects across the West conveyance alignment. As for Alternative 1C, construction and operation of physical facilities for water conveyance under Alternative 2C would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the

severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

CEQA Conclusion: Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities would be the same under Alternative 2C as those described for Alternative 1C. The construction of permanent facilities and associated work areas would be located around the community of Clarksburg, creating linear construction zones between the community and outlying areas. Intakes 1 and 2 (along with their associated pumping plants, transmission lines, and access roads) and segments of conveyance pipeline would surround the community on the north, west, and south. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create linear construction areas for a period of time. Additionally, the lasting placement of the intake facilities would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

CEQA Conclusion: Construction activities associated with Intakes 1 and 2, their associated facilities, and segments of conveyance pipeline would be located around the community of Clarksburg. Even though access to and from the community would be maintained over the long-term, the placement of Intake 2, as well as the nearby construction of Intake 1, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, Transportation, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same under Alternative 2C as those described under Alternative 1C. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility for this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibility with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 2C would be the same as those described for Alternative 1C because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1C, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 2C would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.8 Alternative 3—Dual Conveyance with Pipeline/Tunnel and Intakes 1 and 2 (6,000 cfs; Operational Scenario A)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 3 would be similar to those described for Alternative 1A. Under this Alternative, however, only Intakes 1 and 2 would be constructed, resulting in incompatibilities with land designated under the Sacramento County General Plan exclusively for Agricultural Cropland.

Like Alternative 1A, Alternative 3 would place other temporary and permanent structures on lands designated for other uses by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. These incompatibilities are summarized by Table 13-10. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Table 13-10. Water Conveyance Incompatibilities with Land Use Designations under Alternative 3 (acres)

	Alameda County				Contra Costa County						Sacramento County							San Joaquin County		
Surface Feature	Agriculture	Commercial	Public	Residential	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Forebay					141	526		26	160	2	1,002									
Intake											124					26				
Potential Borrow Area											584				0					
Potential Spoil Area	205	1	7	4	406				1											
Shaft Location											82					0		199	66	
Transmission Line	2	0	1	0	7	12	1		6	1	90	1		1	2	6	1	98	28	0
Reusable Tunnel Material Area											695							887	14	
Subtotal Permanent	**207**	**1**	**8**	**4**	**554**	**538**	**1**	**26**	**167**	**3**	**2,577**	**1**	**0**	**1**	**2**	**32**	**1**	**1,184**	**108**	**0**
Access Road Work Area					0				6											
Barge Unloading Facility											27					5		42	99	
Concrete Batch Plant				0	2						44							40		
Control Structure Work Area					1				3											
Fuel Station	1			1	0						6							2		
Intake Work Area											242					39				
Pipeline											66									
Road Work Area					0				1											
Safe Haven Work Area						11					37				0	0		68	1	
Transmission Line	1	0	1	0	5	11	0		7	1	109	0	0	0	2	1	1	83	47	0
Tunnel Work Area											69							62		
Subtotal Temporary	**2**	**0**	**1**	**1**	**8**	**21**	**0**	**0**	**17**	**1**	**600**	**0**	**0**	**0**	**2**	**45**	**1**	**297**	**147**	**0**
Grand Total	**209**	**1**	**9**	**5**	**562**	**559**	**1**	**26**	**184**	**3**	**3,177**	**1**	**0**	**1**	**4**	**77**	**2**	**1,481**	**255**	**0**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 3 would be similar to those described for Alternative 1A. However, potential variation in the severity of these effects would result from the construction of three fewer intake locations. This alternative would be anticipated to disrupt approximately 144 permanent structures including an estimated 37 residential structures. Other structures affected would consist primarily of storage or agricultural support facilities; however, several private recreational structures would also be affected. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment. As for Alternative 1A, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

CEQA Conclusion: Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to potential structures adjacent to and through a portion of an existing community as a result of the construction of water conveyance facilities under Alternative 3 would be considerably less extensive than those described for Alternative 1A because only Intakes 1 and 2 would be constructed, reducing potential effects on the community of Hood relating to intake facility and conveyance pipeline construction. While construction activities for intakes and the intermediate forebay would still occur in the relative proximity of Hood, the community would not be crossed by this alternative and this effect is not considered adverse.

CEQA Conclusion: Because no structure built for the purposes of water conveyance would be located adjacent to or through a portion of an existing community under this alternative, this impact would be considered less than significant; therefore, no mitigation is required.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same under Alternative 3 as those described under Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility of Alternative 3 with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 3 would be the same as those described for Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the

severity of the physical impact itself. This alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

CEQA Conclusion: Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 3 would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.9 Alternative 4—Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5 (9,000 cfs; Operational Scenario H)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Alternative 4 would result in the construction of permanent and temporary features associated with the proposed water conveyance facility across land governed by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. Constructing Alternative 4 would require land use activities that would be incompatible with land use designations, goals and policies ascribed to the study area and for the purposes of reducing environmental impacts. To the extent that constructing Alternative 4 would result in incompatibilities with land use designations, goals and policies designed to avoid or reduce environmental effects, these potential incompatibilities are described below. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Because the primary conveyance component for Alternative 4 would be an underground tunnel, there would be no permanent adverse physical effects on or incompatibilities with surface land use

solely due to this subsurface component; similarly, conveyance pipelines would not result in a permanent land surface change, and accordingly there would be no direct permanent incompatibilities with existing land use designations due to these subsurface features. As such, excepting construction activities potentially occurring over the nine-year construction period (e.g., tunneling and open-trench installation of pipelines) and surface features related to the tunnels and conveyance pipelines (e.g., RTM areas, shafts, access roads), permanent incompatibilities with existing land uses as they pertain to the proposed tunnel and pipelines are not discussed further.

Table 13-11 displays the temporary and permanent structures associated with the water conveyance facility, the local land designations on which they would occur, and the number of acres that would be affected under this alternative. Under Alternative 4, the method of delivering power to construct and operate the water conveyance facilities is assumed to be a "split" system that would connect to the existing grid in two different locations—one in the northern section of the alignment, and one in the southern section of the alignment (see Mapbook Figure M3-4).

Mapbook Figure M13-4 displays relevant generalized land use designations where they could overlap with proposed water conveyance structures and temporary work areas. For further discussion of the locations of various structures, please refer to Chapter 3, *Description of Alternatives*.

State and Regional Plan Policies

Under Alternative 4, construction activities associated with the features listed in Table 13-11 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council Final Draft Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. While the operable barrier constructed at the head of Old River could be partially constructed in the Lower San Joaquin River Floodplain Priority Habitat Restoration Area, the construction of this individual feature would require less than 6 acres of land and would not substantially reduce opportunities for habitat restoration in this area. Additionally, activities associated with BDCP CM3–CM11 would reduce these effects by restoring or permanently protecting other areas that could have been restored at the site affected. As noted under Alternative 4, Impact LU-4, below, priority habitat restoration areas substantially coincide with the restoration opportunity areas identified for tidal natural communities under BDCP CM4. Therefore, implementation of this BDCP alternative would be considered compatible with this policy. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM1 would be compatible with Policy DP P2.

Table 13-11. Water Conveyance Incompatibilities with Land Use Designations under Alternative 4 (MPTO) (acres)

	Alameda County			Contra Costa County									Sacramento County						San Joaquin County		
Surface Feature	Commercial	Public	Residential	Agricultural Core	Agricultural Lands	Commercial	Delta Recreation and Resources	Light Industry	Parks and Recreation	Public and Semi-Public	Single-Family Residential - Medium Density	Water	Agricultural Cropland	Agricultural-Residential	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Agriculture/ General	City	Open Space/ Resource Conservation
Canal					33					17		9									
Control Structure										4											
Forebay					93		522		34	112		153	243								
Forebay Overflow Structure									1			0									
Intake													241				2	19			
Operable Barrier																				3	2
Potential Borrow/Spoil Area													201					0			
Shaft Location					5		19			0			21						78		38
Transmission Line													299	4	4		10				
Reusable Tunnel Material Area					313		672					0	409				24		1,855		228
Subtotal Permanent	**0**	**0**	**0**	**0**	**444**	**0**	**1,213**	**0**	**35**	**133**	**0**	**162**	**1,413**	**4**	**4**	**0**	**36**	**19**	**1,933**	**3**	**268**
Barge Unloading Facility							0					2							3		36
Canal Work Area					60					51		8									
Control Structure Work Area										6											
Forebay Dredging Area									2			2,024									
Forebay Overflow Structure									2			1									
Intake Work Area													397			0	12	38			
Road Work Area													65								
Safe Haven Work Area													37						130		5
Siphon Work Area					3					1											
Transmission Line	0	15	0	60	31	2	20	1		38	2	1	55				3		246		58
Reusable Tunnel Material Conveyor Facility													7						43		
Tunnel Work Area													23						74		17
Subtotal Temporary	**0**	**15**	**0**	**60**	**94**	**2**	**20**	**1**	**4**	**97**	**2**	**2,036**	**585**	**0**	**0**	**0**	**15**	**38**	**495**	**0**	**116**
Grand Total	**0**	**15**	**0**	**60**	**538**	**2**	**1,233**	**1**	**39**	**229**	**2**	**2,198**	**1,998**	**4**	**4**	**0**	**50**	**56**	**2,428**	**3**	**384**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

Alternative 4 may result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Intake structures require contact with water and cannot feasibly be set back from levees. Additionally, Land Use P-14 provides that agricultural lands converted to water impoundment may not result in seepage of water and that such conversions must mitigate associated risks and effects. Forebays constructed for this alternative would avoid and mitigate for the effects of seepage, as described under Impact GW-5 in Chapter 7, *Groundwater*, and its associated mitigation measure. Forebay design, as well as this proposed mitigation, would establish compatibility with this policy. Incompatibilities could occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1. These potential incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Under this alternative, indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If the construction and operation of water conveyance facilities under this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Sacramento County

Permanent surface features associated with that portion of the water conveyance facility that would fall in Sacramento County include three intakes (with associated pumping plants and other features), an intermediate forebay, a borrow/spoil area, shaft locations, RTM areas, and transmission lines. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*. Temporary features include reusable tunnel material conveyor facilities, transmission lines, and work areas for construction of physical features. These features would occur on lands designated for Agricultural Cropland, Agricultural-Residential, Low Density Residential, Medium Density Residential, Natural Preserve, and Recreation. Table 13-11 summarizes these features and the land use designations with which they would be incompatible. These construction activities would be incompatible with general plan agriculture and open space policies, including Policy AG-5, regarding the conversion of farmland, and Policies OS-1 and OS-2, regarding the protection of open space and natural areas. Construction of water conveyance features would diminish the extent of land dedicated to agriculture, open space, and natural areas. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

San Joaquin County

Alternative 4 would result in the permanent conversion of land designated as Agriculture/General, City, and Open Space/Resource Conservation in San Joaquin County due to the construction of tunnel shafts, RTM areas, and an operable barrier at the head of Old River. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*. Temporary features including barge unloading facilities, transmission lines, reusable tunnel material conveyor facilities, and work areas would also be incompatible with existing land use designations. Table 13-11 summarizes these features and the land use designations with which they would be incompatible. Temporary features could be in place for the first nine years of project implementation (i.e., during construction of water conveyance facilities). During that period, lands designated as Agriculture would be temporarily converted to non-agricultural use. Construction during this period and permanent conversion of agricultural land would be incompatible with general plan policies, including Agricultural Lands Policy 5, which reserves agricultural areas principally for crop production, ranching and grazing. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

The placement of tunnel shafts, transmission lines, and RTM areas, were they to occur on or adjacent to lands designated under the San Joaquin County General Plan as Open Space/Resource Conservation would be incompatible with this land use designation. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Contra Costa County

Under Alternative 4, permanent project water conveyance features in Contra Costa County would include the expanded Clifton Court Forebay, a forebay overflow structure, canals, tunnel shafts, RTM areas, and associated water control structures. Table 13-11 summarizes these impacts and the land use designations with which they would be incompatible. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*. Constructing the forebay on lands within the Delta Recreation and Resources designation would be incompatible with the goals of the Contra Costa County General Plan related to this land use designation, which focus on the preservation of land for recreation and agricultural production and processing over the placement of new infrastructure. Construction of the forebay may be incompatible with the general plan Goal 3-G, which discourages development not related to agriculture, mineral extraction, wind energy or other appropriate rural uses on vacant rural lands. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

A narrow area of land running through the proposed future location of the expanded Clifton Court Forebay is designated Public/Semi-Public. The Public/Semi-Public designation includes properties owned by public governmental agencies such as libraries, fire stations, and schools. This designation

is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public/Semi-Public designation applies to properties owned by public agencies and privately owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation.

Temporary project features in Contra Costa County associated with the construction of the water conveyance facility would include transmission lines, barge unloading facilities, forebay dredging areas, and various work areas. Many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above; however, they would occur over a shorter period of time. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Portions of Alternative 4 water conveyance facilities at Clifton Court Forebay would be built in areas covered by Byron Airport LUCP Zones B2, C1, C2, and D. Construction and facilities operations and maintenance activities could be incompatible with policies that limit congregations of people, require ALUC review of tall objects, and prohibit aboveground bulk storage of hazardous materials.

Alameda County

Under Alternative 4, no permanent project water conveyance features are proposed on land within Alameda County, as indicated in Table 13-11. The only temporary project features associated with the construction of the water conveyance facility are transmission lines. Temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). The Public designation includes properties owned by public governmental agencies such as libraries, fire stations, and schools. This designation is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public designation applies to properties owned by public agencies and privately owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation.

CEQA Conclusion: These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Construction of the proposed water conveyance facility under Alternative 4 could directly affect land uses within the study area by both temporarily converting existing land uses during construction and permanently converting existing land uses (including displacement of existing structures and residences) because of the construction of permanent features of the facility. Indirect impacts would primarily happen as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels.

Construction of water conveyance features associated with Alternative 4 would directly affect land use in the study area by temporarily converting land currently under agricultural and open space

uses to temporary access roads, spoils areas, and temporary work and staging areas. These effects would be temporary with this land returning to agricultural or open space uses following construction.

Construction of water conveyance features associated with Alternative 4 would also directly affect land use in the study area by permanently converting land currently under agricultural land use and open space to permanent access roads, intakes and associated facilities, pumping plants, control structures, a small segment of canal, one new forebay and another expanded forebay, tunnel shafts, RTM areas, borrow or spoils areas, and footings for electric transmission line towers. While RTM areas are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described in Appendix 3B, *Environmental Commitments*. In addition, approximately 81 permanent structures would be removed or relocated within the water conveyance facility footprint under this alternative. This includes an estimated 19 residential buildings. Other structures affected would consist primarily of storage or agricultural support facilities; however, several private recreational structures would also be affected. Table 13-12 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-4 shows the distribution of these effects across the Modified Pipeline/Tunnel conveyance alignment. The physical footprints of intakes and intake pumping plant facilities, along with associated work areas, are anticipated to create the largest disruption to structures, conflicting with approximately 45 structures in the vicinity of the east bank of the Sacramento River. Among the three intake sites, 15 residential structures would be affected. Construction of canal segments to convey water between the expanded Clifton Court Forebay and existing approach channels to the Banks and Jones Pumping Plants is estimated to create conflicts with another 16 structures. The footprint of the expanded Clifton Court Forebay would also affect approximately 13 structures. These would be concentrated on the east side of the forebay near Old River. Other features—including RTM areas, tunnel work areas, and safe haven work areas—would also create disruptions to existing structures.

Table 13-12. Estimated Water Conveyance Conflicts with Existing Structures

	Type of Structure				
Alternative	Residential	Recreational	Storage/Support	Other[a]	Total
1A	59	15	120	10	204
1B	109	22	257	21	409
1C	194	31	469	32	726
2A	70	15	124	13	222
2B	121	23	262	25	431
2C	194	31	469	32	726
3	37	7	90	10	144
4	19	8	45	9	81
5	29	4	81	9	123
6A	59	15	120	10	204
6B	109	22	257	21	409
6C	194	31	469	32	726
7	38	8	88	9	143
8	38	8	88	9	143
9	74	69	93	19	255

[a] *Other* structures include power/utility structures, bridges, and other types of infrastructure.

Indirect effects on existing land uses may also arise from changes in access to parcels of land. For example, the removal of access for agricultural vehicles and machinery could jeopardize the ability of that land to continue serving productive agricultural uses. As described in Chapter 19, *Transportation,* the levee road along SR 160 and Randall Island Road would require temporary detour roads during construction of the intakes. Because temporary access routes around these construction areas would be built prior to the disruption of the existing road network, residents and travelers through the Delta would not experience substantial delays in travel from one side of the intake area to the other.

This loss of access would not be considered an adverse effect under this impact. The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility, however, would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would not constitute mitigation for any related physical impact; however, it would reduce the severity of economic effects.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternative 4, the construction of permanent facilities and associated work areas would be located around the community of Hood. A tunnel carrying water south from a pipeline adjacent to Intake Pumping Plant 3 to the intermediate forebay, would wrap around the east side of the community. The tunnel would be constructed below the surface and would not interfere with the existing community; therefore, the alignment would not create a physical structure adjacent to or through the existing community. A permanent power line would be constructed through the eastern section of the community, which would provide power to the intake pumping plants. Additionally, a temporary work area associated with construction of the

conveyance facilities would be built adjacent to Hood on the southern side of the community, and would serve as a staging area during the construction phase. It would consist of facilities such as parking areas, offices, and construction equipment storage. Construction and the long-term placement of Intakes 3 and 5, although not adjacent to Hood, would be built about one-quarter mile north and one-half mile south of Hood, respectively, and would substantially alter the lands to the north and south of the community. While permanent physical structures adjacent to or through Hood are not anticipated to result from this alternative, activities associated with their construction could make it difficult to travel within and around Hood in certain areas for a limited period of time. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect. Additionally, the lasting placement of the intake facilities would represent physical structures that would substantially alter the setting of the community's surroundings, constituting an adverse effect.

***CEQA Conclusion*:** During the construction of the conveyance pipelines and tunnel between Intake 3 and 5 and the intermediate forebay, construction activities would occur to the north and south of the community of Hood. Even though access to and from the community would be maintained over the long-term, the nearby construction of the temporary work area would substantially alter the setting of the community in the near term. Similarly, the nearby construction of Intakes 3 and 5, although not adjacent to Hood, would create permanent physical structures approximately one-quarter mile north and one-half mile south of Hood that would substantially alter the community's surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures in the community's vicinity would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: This section assesses the compatibility of CM2–CM21 (described in detail in Chapter 3, *Description of Alternatives,* Sections 3.6.2 and 3.6.3) that would be implemented across 11 CZs with the predominant applicable county land use designations in those zones, as well as with other applicable local and regional land use designations, goals, and policies. Table 13-13 identifies county land use designations and the county land use jurisdictions for each of the CZs. Small acreage inclusions of other specific land use designations are also within each zone. Table 13-13 provides a general overview of the designations in each zone rather than an identification of every land use or jurisdiction in each zone. Note that none of these measures are proposed for implementation in CZ 10; CZs were delineated primarily on the basis of landscape characteristics and logical geographic or

landform divisions to create a structured approach to how and where conservation actions, as part of the conservation measures, would be carried out within the Plan Area (which lies within the study area for this chapter).

Table 13-13. Predominant Land Use Designations in the Conservation Zones (CZs)

CZ	Jurisdiction	General Plan Land Use Designation
1	Solano County	Agriculture
2	Solano County	Agriculture
	Sutter County	Open Space
	Yolo County	Agriculture, Open Space
3	Solano County	Agriculture
	Yolo County	Agriculture, Open Space
	Sacramento County	Agricultural Cropland
4	Sacramento County	Agricultural Cropland, Agriculture-Recreation Reserve, Natural Preserve
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
5	Sacramento County	Agricultural Cropland, Agriculture-Recreation Reserve, Natural Preserve
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
6	Contra Costa County	Single Family Residential Low Density, Agricultural Lands, Public/Semi Public, Open Space
	San Joaquin County	General Agriculture, Open Space/Resource Conservation
7	San Joaquin County	General Agriculture, Open Space/Resource Conservation
8	San Joaquin County	Commercial Recreation, Residential-Medium and Low Density, General Agriculture
	Contra Costa County	Agriculture Core, Delta Recreation and Resources
	Alameda County	Large Parcel Agriculture, Major Public
9	Contra Costa County	Agriculture Core, Delta Recreation and Resources
10[a]	Contra Costa County	Delta Recreation, Open Space, Heavy Industry, Commercial, Multi-Family Residential Low, Single Family Residential High
11	Solano County	Marsh, Agriculture

[a] Note that none of these measures are proposed for CZ 10; CZs were delineated primarily on the basis of landscape characteristics and logical geographic or landform divisions to create a structured approach to how and where conservation actions would be carried out within the Plan Area (which lies within the study area for this chapter). CZ 10 occurs in a very urbanized portion of Contra Costa County with a diverse number of land use designations.

Over the 50-year BDCP implementation period, the BDCP Implementation Office would secure sufficient lands to restore approximately 65,000 acres of tidal communities; 10,000 acres of seasonally inundated floodplain; 5,000 acres of riparian natural community; 2,000 acres of grasslands; and 1,200 acres of nontidal marsh. Additionally, CM2–CM21 would enhance 20 linear miles of channel margin habitat and restore vernal pool complexes to achieve no net loss resulting from covered activities. Under the BDCP Reserve System, approximately 69,000 acres of land hosting various natural communities would be acquired and protected, including approximately 52,000 acres of cultivated lands. Protection of existing natural communities would be anticipated to be generally compatible with all regional and local designations, goals, and policies intended to avoid environmental effects, including the protection of existing agricultural uses specific to

provisions under CM3 and CM11. Under these two measures, agricultural lands or easements would be acquired and managed for continued agricultural production and specific habitat values for species including Swainson's hawk, giant garter snake, greater sandhill crane, white-tailed kite, and tricolored blackbird. The management activities would include the minimization or discontinuation of pesticide use and the creation of grassland edges, hedgerows, and small woodlots—activities that would be generally compatible with land use designations, goals, and policies relating to agricultural and natural resources. The implementation period for the various restoration and enhancement components would vary based on land identification, acquisition, planning coordination, construction duration, and other variables. These measures would be implemented in CZs –9 and/or 11, in Contra Costa, Sacramento, San Joaquin, Solano, Sutter, and Yolo Counties. Across these CZs, agricultural and open space land use designations encompass the largest total acreage. Smaller constituent land uses in these zones include natural preserve, marsh, recreational, residential, public infrastructure, commercial, and industrial designations.

Implementation of CM2–CM21 would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and in the Delta Stewardship Council draft Delta Plan. As described under Impact LU-1, Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM2–CM21 would not involve residential, commercial, or industrial development, DP P1 would not be applicable. Because CM2–CM21 activities would primarily support habitat restoration, particularly in the priority habitat restoration areas (which substantially coincide with the Restoration Opportunity Areas identified for tidal natural communities under BDCP CM4), these activities would be compatible with ER P3. Additionally, a potential restoration site's cross-sectional profile and ability to accommodate sea level rise will be considered in choosing sites for tidal habitat restoration efforts under CM4. If habitats were restored at different elevations, scientific rationale would be provided in site-specific plans. These activities would be compatible with Policy ER P2. As under effects related to CM1, however, Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM2–CM21 would be compatible with Policy DP P2.

Incompatibilities could potentially arise with LURMP policies. Land Use P-3 provides that new habitat or restoration development ensure that appropriate buffers are provided to prevent incompatibilities with existing adjacent land uses. Land Use P-14 provides that agricultural lands converted to wetland development may not result in seepage of water and that such conversions must mitigate associated risks and effects. While restoration activities in CM3–CM11 would create potential incompatibilities with these policies by creating restoration areas that could have effects on adjacent land uses through crop predation and seepage, implementation of mitigation measures proposed in other chapters would help ensure compatibility with this policy. These include Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones, in Chapter 14, *Agricultural Resources,* and Mitigation Measure GW-5: Agricultural lands

seepage minimization, in Chapter 7, *Groundwater*. Incompatibilities could occur with other LURMP policies, however, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. Depending on the locations for implementation of these measures, however, high-value agricultural land would be converted, creating the potential for incompatibility with this policy. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with Important Farmland.

Indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If implementation of this alternative results in contract nonrenewal, cancellation, or otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Implementation of CM2–CM21 in areas under the jurisdiction of an airport LUCP could be incompatible with LUCP policies if implementation could result in an attraction of birds, create foggy conditions, or place congregations of people in certain airport compatibility zones. However, because the footprints for these measures are not yet known, compatibility with airport LUCPs cannot be fully evaluated. The potential for effects related to airports is further discussed in Chapter 24, *Hazards and Hazardous Materials*. In addition, these issues would be addressed in greater detail in site-specific environmental documents for restoration proposals.

Conservation Measures 2–21 may also be implemented on lands guided by land use designations, goals, and policies identified by county and city general plans in the study area. To the extent that implementing these conservation measures may result in incompatibilities with land use designations, goals, and policies designed to avoid or reduce environmental effects, these potential incompatibilities are described below. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

Protection of existing natural communities would be anticipated to be compatible with all regional and local designations, goals, and policies intended to avoid environmental effects, including the protection of existing agricultural uses specific to provisions under CM3 and CM11.

However, where restoration or enhancement actions would directly convert agricultural land uses (in Contra Costa, San Joaquin, Sacramento, Solano, and Yolo Counties), these actions would potentially be incompatible with local land use designations and related policies that are intended to preserve agricultural resources including Contra Costa County Policy 8-2 and Agricultural Core or Agricultural Lands designations; the Sacramento County designation for Agricultural Cropland; San Joaquin County Agricultural Lands Policy 5 and the General Agricultural designation; Solano County Policies AG.P-4 and AG.P-28, along with the Agriculture designation; and Yolo County's Agriculture designation and Policies AG-1.3, AG-1.4, and AG-1.5. Physical effects implied by these potential incompatibilities would result in the loss of productive agricultural lands, which is discussed further in Chapter 14, *Agricultural Resources.*

Open Space, and Open Space/Recreation land use designations (in Contra Costa, San Joaquin, Sutter, and Yolo Counties), Natural Preserve (Sacramento County), and Marsh (Solano County) land use

designations would typically be compatible with activities associated with the conservation measures that could be implemented in those counties as part of the alternative (e.g., restoration of tidal marsh, riparian habitat, grasslands, and floodplain enhancement and restoration). As such, no permanent adverse effects would be anticipated to result based upon land use incompatibilities. In November 2010, the Yolo County Board of Supervisors approved a 2-year moratorium on habitat mitigation projects within the county. While DWR and federal agencies are not subject to this moratorium, this ordinance could apply to other habitat mitigation projects by private and other public entities. Further discussion of compatibility with HCPs is located in Chapter 12, *Terrestrial Biological Resources,* Section 12.3.3.18, *Effects on Other Conservation Plans*.

As described below, measures designed at the species-level to support viability and reduce the effects of environmental stressors on covered species would also carry the potential to alter land use within the study area. In some cases, the location of implementation for these measures is not yet known and only theoretical effects can be discussed.

Actions to manage methylmercury under CM12 could include a number of methods, including the initial characterization of soil mercury at potential restoration sites, the reduction of organic material at potential restoration sites, site design that enhances the photodegradation of methylmercury, sediment remediation, and capping of mercury-laden sediments. While these activities would not, in themselves, be anticipated to create incompatibilities with land use designations, additional standards or measures designed and implemented through the adaptive management process could create the potential for incompatibilities with land use designations, goals, and policies within the study area were they to restrict land uses or result in a change in land use necessary for the management of methylmercury.

CM13 would control nonnative aquatic vegetation including Brazilian waterweed, water hyacinth, and other nonnative submerged and floating aquatic vegetation in BDCP tidal habitat restoration areas. Site-specific conditions and the intended goal would dictate the specific method of removal. Operations associated with vegetation control, including mechanical removal, could be incompatible with existing land use designations if the construction of new facilities and structures is necessary to house related equipment and machinery. Additionally, operations under this measure may require facilities dedicated to the storage of removed vegetation, which, depending on their location, could potentially be incompatible with the land use designations or policies identified above.

Implementation of CM14 would include the operation and maintenance of an oxygen aeration facility in the Stockton Deep Water Ship Channel to increase dissolved oxygen concentrations. This conservation measure would modify the existing aeration facility as necessary and, if necessary, additional aerators and associated infrastructure would be added to optimize oxygen delivery to the river. To the extent that this facility would require physical modification on additional land not currently dedicated to similar purposes, this measure could potentially be incompatible with the land use policies or designations identified above.

CM15 is intended to reduce local effects of predators on covered fished species by conducting predator control in areas with high predator density. Predator hot spots would be identified and control methods would be adopted including removal of predator hiding spots, modification of channel geometry, targeted removal of predators, and other focused methods as dictated by site-specific conditions and the intended outcome or goal. The extent of this effect would depend on the locations identified for implementation and the extent to which methods with physical components were implemented under this measure. For instance, land-based capture of target predators need

not require a change in land use. However, modification of channel geometry undertaken to create habitats less favorable for predators could potentially be incompatible with land use designations or policies identified above.

Installation of non-physical fish barriers at the head of Old River, the Delta Cross Channel, and Georgiana Slough would occur under CM16. Other possible locations include Turner Cut, Columbia Cut, the Delta Mendota Canal intake, Clifton Court Forebay, and potentially other future locations. In addition to the installation of the barrier itself between October and June, the installation and operation could require the construction of transmission facilities and access roads, and potentially other facilities. Additionally, barriers would be removed and stored off-site while not in operation. Further discussion of this measure is provided in Chapter 3 of the BDCP, Section 3.4.17. Temporary (e.g., work and staging areas) or construction of permanent storage facilities associated with these barriers could be potentially incompatible with land designations for General Agriculture or Resource Conservation in San Joaquin County along with Agriculture Lands Policy 5 and Open Space Policies 3, 4, 6, and 13; land designated by the City of Lathrop as Recreation Residential and Public (Schools, Parks, & Open Space); Sacramento County Policy OS-1 and land designations for Natural Preserve, Agricultural Cropland; and potentially other policies and designations identified above, depending on barrier design and selection of locations.

To address the illegal harvest of covered species across the study area, CM17 would provide funds to hire and equip 22 additional staff, including 17 game wardens, to increase enforcement of fishing regulations. To the degree that these staff would require the construction of additional office space, storage areas, or vehicle parking areas on lands not currently designated by local entities for such uses, the measure could be potentially incompatible with land use designations or policies identified above.

Under CM18, a new conservation hatchery would be developed by USFWS to support delta and longfin smelt populations. The facility as planned would consist of two sites: a science-oriented genetic refuge and research facility on the edge of the Sacramento River, and a larger supplementation production facility nearby. These facilities are anticipated to be located in the vicinity of the City of Rio Vista; their construction and long-term operation would create the potential for temporary or permanent incompatibilities with the city's general plan land use designations, goals, and policies. However, these facilities would potentially be on land designated as Army Base Reuse Area and Industrial/Employment District – General; thus, incompatibilities are not anticipated. This measure would also fund the expansion of the UC Davis Fish Conservation and Culture Laboratory, near Byron, California. Expansion of the existing facility could be potentially incompatible with Contra Costa County land use designations for Agricultural Lands or Delta Recreation.

CM19 would further existing efforts to reduce loads of toxic contaminants in stormwater and urban runoff throughout the Delta. Activities associated with implementation of this measure could include the construction of retention or irrigation holding ponds for the capture and irrigation use of stormwater, establishment of vegetated buffer strips to slow runoff velocities, construction of bioretention systems, among other features whose construction or long-term functions would occur upon lands deemed for other uses by local entities. Based upon the potentially wide geographic scope of this measure, any incompatibilities with land use designations or policies would not be known until locations for these facilities are chosen. However, the placement of the physical features proposed under this measure could be potentially incompatible with general plan land use designations or policies identified above.

Implementation of CM20 would include the provision of wash stations with sufficient cleaning abilities to kill aquatic invasives on watercraft, trailers, and other equipment leaving water bodies within California that are infested with zebra or quagga mussels. Wash stations will be strategically placed at boat ramps of each water body and owners will be encouraged to clean their watercraft and trailers upon leaving the water body. Additionally, this measure would fund inspection stations on roads at California borders that currently do not have inspection stations. Locations of these stations would include Needles Highway southbound; Highway 95 southbound at Arrowhead Junction; State Route 95, southbound at Needles Bridge; Havasu Lake Road near the west shore of Lake Havasu; Highway 95 at Vidal Junction; Agnes Wilson Bridge westbound; and Highway 95 southbound north of Blythe. Semi-permanent inspection stations will be established and operated on busy boat traffic days. While specific locations of these facilities are unknown at this point, they could be potentially incompatible with land use designations or policies identified above.

CM21 would address nonproject irrigation diversions to reduce the entrainment of covered fish species in the Delta. Activities associated with this measure would likely include installation of or improvements to fish screens; voluntary alteration of daily and seasonal diversion timing; and physical removal, relocation, consolidation, and modification of diversions. Removing or modifying the location of these structures could be incompatible with land designations for agricultural uses throughout the study area, at least on a temporary basis. Alterations to diversions could create indirect incompatibilities with land use designations or policies as identified in regional, county, and city plans, particularly with respect to agricultural lands and lands dedicated to waterfowl rearing. To the extent that such incompatibilities would result in a physical consequence on the environment, these potential effects are described further in Chapter 14, *Agricultural Resources* and Chapter 12, *Terrestrial Biological Resources*.

Any conservation measure requiring construction activities (e.g., establishment of storage, staging and stockpiling areas; grading; levee removal/replacement) could be potentially incompatible with land use designations or policies identified above for the duration of those activities.

Because the locations for the implementation of these conservation measures are not known at this point, a definitive conclusion about the compatibility of this alternative with local land use designations, goals, and policies cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibility with local land use regulations due to the amount of land area targeted for restoration actions. Because most activities would be anticipated to take place on land designated for agriculture, open space, natural preserve and recreation, local designations, goals, and policies related to preservation of those attributes would be most affected. As mentioned above, activities such as restoration of tidal habitat, seasonally inundated floodplain, riparian habitat, grassland and nontidal freshwater marsh could be incompatible with general plan policies to preserve agricultural land uses and farmland soils, including Contra Costa Policies 8-2, 8-29 and 8-33, Sacramento County Policy AG-5, San Joaquin County Agricultural Lands Policy 5, Solano County Policies AG.P-4 and AG.P-28, and Yolo County Policies AG-1.4, AG-1.5, AG-1.6, AG-2.10, and AG-6.1. However, those same activities could be compatible with and supportive of numerous general plan policies for open space, natural preserve, natural resources or recreation, including Alameda County ECAP Policy 53, Contra Costa Policies 3-64, 8-9, 8-17, 8-84 and 8-93, Sacramento County Policy AG-15, OS-1 and OS-2, San Joaquin County Open Space Policy 4, and Solano County Policies RS.P-1, RS.P-2, RS.P-3, RS.P-4, RS.P-5, RS.P-7, RS.P-8, RS.P-9, RS.P-10, RS.P-11, and RS.P-12. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are not known at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues, therefore, will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Existing land uses in the CZs are predominantly agricultural, open space, or rural residential with some small inclusions of commercial and industrial areas, as previously described. Land uses within the boundaries of incorporated cities vary considerably in the study area but predominantly include areas dedicated to residential, commercial, and industrial areas. While the location of each restoration and/or enhancement action is not known at this time, it is possible that implementing these conservation measures may result in temporary (e.g., construction activities that may conflict with land designated as open space) or permanent (e.g., displacement of existing residents and removal of existing structures) physical conflicts with existing land uses in or immediately adjacent to the study area.

Restoration of tidal habitat, riparian areas, nontidal perennial aquatic habitat, nontidal perennial freshwater emergent wetland, grasslands, and vernal pool complexes, protecting and enhancing alkali seasonal wetland complexes, and managing agricultural lands for optimal habitat use may conflict with existing agricultural and rural residential land uses in the Cache Slough ROA in CZ 1, and in southeastern Solano and Yolo Counties depending on the location of each activity. Similarly, restoring riparian habitat and managing agricultural lands for optimal habitat use may conflict with existing agricultural and rural and suburban residential, as well as commercial and light industrial land uses in various locations within CZ 3 in Sacramento County. Activities associated with restoration of tidal habitat perennial aquatic/tidal brackish emergent wetland, riparian areas, nontidal perennial aquatic habitat, and nontidal perennial freshwater emergent wetland areas of San Joaquin, Alameda, and Contra Costa Counties and managing agricultural lands for optimal habitat use, restoring vernal pool complexes, or protecting and enhancing alkali seasonal wetland complexes in CZs 5–10 of these counties may conflict with existing agricultural and other land uses depending on the locations of these activities. Activities associated with restoration of tidal habitat, were it to occur within the Stone Lakes National Wildlife Refuge, would be compatible with existing land uses. Restoration of tidal perennial aquatic/tidal brackish emergent wetland, riparian areas, nontidal perennial aquatic habitat, nontidal perennial freshwater emergent wetland, grasslands, and vernal pool complexes, and protecting and enhancing alkali seasonal wetland complexes in the Suisun Marsh are not likely to conflict with any existing land uses because that area is already managed toward these goals.

Without more site-specific information about the locations and types of restoration to be implemented, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility, nor can a conclusion be

made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of any facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: The areas in which restoration actions are planned would be primarily natural or agricultural areas. Without more site-specific information about the locations and types of restoration to be implemented at those locations, no definitive conclusion can be made about the potential for restoration actions to result in the physical division of an existing community. In general, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities. To the extent that conservation areas are anticipated to create conflicts with community functionality and land use guidance, these effects are captured by and described under Impact LU-4: *Incompatibility with applicable land use designations, goals, and policies as a result of implementing the proposed Conservation Measures 2–21*. In areas and land use designations that focus on agricultural production, the potential exists for restoration actions to isolate agricultural areas from the communities that provide services and markets to those farmers; however, such an effect would not be considered to divide an existing community. Temporary and permanent effects on agricultural resources are discussed in Chapter 14, *Agricultural Resources.* Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.10 Alternative 5—Dual Conveyance with Pipeline/Tunnel and Intake 1 (3,000 cfs; Operational Scenario C)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 5 would be similar to those described for Alternative 1A. Under Alternative 5, however, only one intake facility would be constructed, requiring a single-bore tunnel built between the Intermediate Forebay and the Byron Tract Forebay, both of which would be smaller. Smaller areas would also be needed for the ongoing storage of RTM.

Like Alternative 1A, however, Alternative 5 would place temporary and permanent structures on lands designated for other uses by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. These incompatibilities are summarized by Table 13-14. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 5 would be similar to those described for Alternative 1A. However, potential variation in the severity of these effects would result from the construction of fewer intake locations, fewer tunnel shafts, smaller RTM areas, and smaller forebays. Under Alternative 5, approximately 123 structures would be affected, including an estimated 29 residential structures. Other structures affected would consist primarily of storage or agricultural support facilities; however, several private recreational structures would also be affected. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment. As for Alternative 1A, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

Table 13-14. Water Conveyance Incompatibilities with Land Use Designations under Alternative 5 (acres)

	Alameda County				Contra Costa County						Sacramento County							San Joaquin County		
Surface Feature	Agriculture	Commercial	Public	Residential	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Forebay					141	526		26	160	2	1,002									
Intake											58					13				
Potential Borrow Area											584				0					
Potential Spoil Area	205	1	7	4	406				1											
Shaft Location											83					0		199	66	
Transmission Line	2	0	1	0	7	12	1		6	1	95	1		1	2	6	1	98	28	0
Reusable Tunnel Material Area											695							887	14	
Subtotal Permanent	**207**	**1**	**8**	**4**	**554**	**538**	**1**	**26**	**167**	**3**	**2,517**	**1**	**0**	**1**	**2**	**19**	**1**	**1,184**	**108**	**0**
Access Road Work Area					0				6											
Barge Unloading Facility											27					5		42	99	
Concrete Batch Plant				0	2						44							40		
Control Structure Work Area					1				3											
Fuel Station	1			1	0						6							2		
Intake Work Area											117					20				
Pipeline											65									
Road Work Area					0				1											
Safe Haven Work Area						11					37				0	0		68	1	
Transmission Line	1	0	1	0	5	11	0		7	1	120	0	0	0	2	1	1	83	47	0
Tunnel Work Area											69							62		
Subtotal Temporary	**2**	**0**	**1**	**1**	**8**	**22**	**0**	**0**	**17**	**1**	**485**	**0**	**0**	**0**	**2**	**26**	**1**	**297**	**147**	**0**
Grand Total	**209**	**1**	**9**	**5**	**562**	**560**	**1**	**26**	**184**	**4**	**3,002**	**1**	**0**	**1**	**4**	**45**	**2**	**1,481**	**255**	**0**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 5 would be considerably less extensive than those described for Alternative 1A because Intakes 2 through 5 would not be constructed and the Intermediate Forebay would be smaller, reducing potential effects on the communities of Hood relating to construction of intake facilities and conveyance pipelines. While construction activities for Intake 1 and the intermediate forebay would still occur in the relative proximity of Hood, the community would not be crossed by this alternative and this effect is not considered adverse.

***CEQA Conclusion*:** Because no structure built for the purposes of water conveyance would be located adjacent to or through a portion of an existing community under this alternative, this impact would be considered less than significant; therefore, no mitigation is required.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be similar under Alternative 5 to those described under Alternative 1A. However, under Alternative 5, only

25,000 acres of tidal habitat would be restored, as compared with 65,000 acres under Alternative 1A. Thus, to the extent that implementation of tidal habitat restoration would be incompatible with land use designations, goals, and policies, these effects would be anticipated to be smaller than those resulting from Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

CEQA Conclusion: Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 5 would be the similar to those described for Alternative 1A. However, potential variation in the severity of these effects would result from a smaller area targeted for tidal habitat restoration. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Despite its smaller restoration area, this alternative would still be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 5 would be similar to those described for Alternative 1A. However, potential variation in the severity of these effects could result from different target acreages for tidal habitat restoration. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about Alternative 5 potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.11 Alternative 6A—Isolated Conveyance with Pipeline/Tunnel and Intakes 1–5 (15,000 cfs; Operational Scenario D)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 6A would be identical to those described for Alternative 1A.

Like Alternative 1A, Alternative 6A would place temporary and permanent structures on lands designated for other uses by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under this alternative would be identical to those described for Alternative 1A. As for Alternative 1A, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. Table 13-4 summarizes the estimated number of structures affected across structure type

and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative project, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 6A would be identical to those described for Alternative 1A. Construction of permanent facilities and associated work areas would be located in and around the community of Hood, in some cases displacing structures in the community and creating linear construction zones between structures within the community. Intake 4, if built under this alternative, would be constructed along the southern border of the community over a period of approximately four years, altering a point of access to the community. Work areas associated with construction of the conveyance pipeline carrying water from Intake 3 to the intermediate forebay would run north to south in the eastern section of the community. While a permanent physical division within the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and intermediate forebay would represent physical structures that would substantially alter the setting of the community and its immediate

surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

***CEQA Conclusion*:** During the construction of the conveyance pipeline between Intake 3 and the intermediate forebay, construction activities would cross the community of Hood, limiting access between some of the community's easternmost structures and the main section of the community. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same for Alternative 6A as those described under Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility for this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 6A would be similar to those described for Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Without more site-specific information about the locations and types of restoration to be implemented, no definitive conclusion can be made; however, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 6A would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.12 Alternative 6B—Isolated Conveyance with East Alignment and Intakes 1–5 (15,000 cfs; Operational Scenario D)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Land use incompatibility resulting from the construction of water conveyance facilities under Alternative 6B would be identical to those described for Alternative 1B.

Like Alternative 1B, Alternative 6B would construct permanent and temporary features upon lands covered by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. These structures would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 6B would be identical to those described for Alternative 1B. As for Alternative 1B, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-2 shows the distribution of these effects across the East conveyance alignment.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as

"historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 6B would be similar to those described for Alternative 1B. Construction of Intake 4, a segment of canal, a bridge, and associated work areas would be located in close proximity of the community of Hood, in some cases displacing structures in the community and creating linear construction zones between the community and outlying areas. During construction of these project facilities, access would be limited between the community and points to the east. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and the canal would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

***CEQA Conclusion*:** Construction activities associated with Intake 4 and its associated facilities, the canal, and a bridge over the canal would limit access between the community of Hood and surrounding areas. Even though access to and from the community would be maintained over the long-term, the placement of Intake 4 and the canal, as well as the nearby construction of Intake 3, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, Transportation, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same under Alternative 6B as those described under Alternative 1B. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibility with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibility would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 6B would be the same as those described for Alternative 1B because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1B, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of

incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under this alternative would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.13 Alternative 6C—Isolated Conveyance with West Alignment and Intakes W1–W5 (15,000 cfs; Operational Scenario D)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Conflicts with local land use plans under Alternative 6C would be identical to those described for Alternative 1C. Alternative 6C would construct permanent and temporary water conveyance structures on land governed by the general plans of Yolo, Solano, Sacramento, and Contra Costa Counties. Construction activities under Alternative 6C would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with airport compatibility plans adopted by Contra Costa and Yolo County ALUCs. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 6C would be identical to those described for Alternative 1C. As for Alternative 1C, construction and operation of

physical facilities for water conveyance under Alternative 6C would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-3 shows the distribution of these effects across the West conveyance alignment.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities would be the same under Alternative 6C as those described for Alternative 1C. The construction of permanent facilities and associated work areas would be located around the community of Clarksburg, creating linear construction zones between the community and outlying areas. Intakes 1 and 2 (along with their associated pumping plants, transmission lines, and access roads) and segments of conveyance pipeline would surround the community on the north, west, and south. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create linear construction areas for a period of time. Additionally, the lasting placement of the intake facilities would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, constituting an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

***CEQA Conclusion*:** Construction activities associated with Intakes 1 and 2, their associated facilities, and segments of conveyance pipeline would be located around the community of Clarksburg. Even though access to and from the community would be maintained over the long-term, the placement of Intake 2, as well as the nearby construction of Intake 1, would create permanent physical structures that would substantially alter the setting of the community and its immediate surroundings. These structures would therefore result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 would be the same under Alternative 6C as those described under Alternative 1C. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility for this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 6C would be the same as those described for Alternative 1C because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1C, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 6C would be the same as those described for Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.14 Alternative 7—Dual Conveyance with Pipeline/Tunnel, Intakes 2, 3, and 5, and Enhanced Aquatic Conservation (9,000 cfs; Operational Scenario E)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 7 would be similar to those described for Alternative 1A. Under Alternative 7, however, only three intake facilities would be constructed, resulting in incompatibilities with land designated under the Sacramento County General Plan for Agricultural Cropland and potentially, land designated for Natural Preserve.

Like Alternative 1A, Alternative 7 would place other temporary and permanent structures on lands designated for other uses by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. These incompatibilities are summarized by Table 13-15. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with the Byron Airport LUCP. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 7 would be similar to those described for Alternative 1A. However, potential variation in the severity of these effects would result from the construction of two fewer intake locations. Under Alternative 7, approximately 143 structures would be affected, including an estimated 38 residential structures. Other structures affected would consist primarily of storage or agricultural support facilities; however, several industrial, commercial, and private recreational structures would also be affected. One fire station in the community of Hood would also be affected under this alternative. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment. As for Alternative 1A, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

Table 13-15. Water Conveyance Incompatibilities with Land Use Designations under Alternative 7 (acres)

	Alameda County				Contra Costa County						Sacramento County							San Joaquin County		
Surface Feature	Agriculture	Commercial	Public	Residential	Agricultural Lands	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Medium Density Residential	Natural Preserve	Recreation	Commercial / Offices	Agriculture / General	Open Space / Resource Conservation	Residential / Very Low Density
Forebay					141	526		26	160	2	1,002									
Intake											163				7	33				
Potential Borrow Area											584				0					
Potential Spoil Area	205	1	7	4	406				1											
Shaft Location											82					0		199	66	
Transmission Line	2	0	1	0	7	12	1		6	1	76	1		1	2	5	1	98	28	0
Reusable Tunnel Material Area											695							887	14	
Subtotal Permanent	**207**	**1**	**8**	**4**	**554**	**537**	**1**	**26**	**167**	**3**	**2,602**	**1**		**1**	**9**	**38**	**1**	**1,184**	**108**	**0**
Access Road Work Area					0				6											
Barge Unloading Facility											27					5		42	99	
Concrete Batch Plant				0	2						44							40		
Control Structure Work Area					1				3											
Fuel Station	1			1	0						6							2		
Intake Work Area											322				9	50				
Pipeline											2									
Pipeline Work Area											114		25							
Road Work Area					0				1											
Safe Haven Work Area						11					37				0	0		68	1	
Transmission Line	1	0	1	0	5	11	0		7	1	105	0	1	0	2	2	1	83	47	0
Tunnel Work Area											70							62		
Subtotal Temporary	**2**	**0**	**1**	**1**	**8**	**22**	**0**		**17**	**1**	**726**	**0**	**26**	**0**	**11**	**57**	**1**	**297**	**147**	
Grand Total	**209**	**1**	**9**	**5**	**562**	**559**	**1**	**26**	**184**	**4**	**3,328**	**1**	**26**	**1**	**20**	**96**	**2**	**1,481**	**255**	**0**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 7 would be similar to those described for Alternative 1A; however, only Intakes 2, 3, and 5 would be constructed, reducing the potential effects on the community of Hood associated with the construction of Intake 4. Work areas associated with construction of the conveyance pipeline carrying water from Intake 3 to the intermediate forebay would run north to south in the eastern section of the community. Additionally, construction and the long-term placement of Intake 3 and the intermediate forebay would substantially alter the lands surrounding Hood. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and intermediate forebay would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, resulting in an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

***CEQA Conclusion*:** During the construction of the conveyance pipeline between Intake 3 and the intermediate forebay, construction activities would cross the community of Hood, limiting access between some of the community's easternmost structures and the main section of the community. These divisions would result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 under Alternative 7 would be similar to those described under Alternative 1A. However, under Alternative 7, 40 linear miles of channel margin habitat would be enhanced and 20,000 acres of seasonally-inundated floodplain would be restored, as compared with 20 linear miles and 10,000 acres, respectively, under Alternative 1A. Thus, to the extent that implementation of channel margin habitat enhancement and seasonally-inundated floodplain restoration would be incompatible with land use designations, goals, and policies, these effects would be anticipated to be greater than those resulting from Alternative 1A. Because the locations for the implementation of CM2–CM21 are unknown at this time, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and

regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2-21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 7 would be similar to those described for Alternative 1A. However, potential variation to the severity of these effects could result from different target acreages. As in Alternative 1A, implementation of these conservation measures could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. This alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 7 would be similar to those described for Alternative 1A. However, potential variation to the severity of these effects could result from different target acreages. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.15 Alternative 8—Dual Conveyance with Pipeline/Tunnel, Intakes 2, 3, and 5, and Increased Delta Outflow (9,000 cfs; Operational Scenario F)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Incompatibility with land use regulations stemming from the construction of water conveyance structures under Alternative 8 would be identical to those described for Alternative 7.

Like Alternative 7, Alternative 8 would place temporary and permanent structures on lands designated for other uses by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these counties' general plans, along with guidelines identified by state and regional plans. Construction and subsequent operations and maintenance activities also have the potential to be incompatible with the Byron Airport LUCP. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 8 would be identical to those described for Alternative 7. As for Alternative 7, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-1 shows the distribution of these effects across the Pipeline/Tunnel conveyance alignment.

The removal of a substantial number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse socioeconomic effect of this alternative under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of the proposed water conveyance facility would necessitate the removal of a substantial number of existing permanent structures. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail

economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Effects related to any potential division of an existing community as a result of the construction of water conveyance facilities under Alternative 8 would be identical to those described for Alternative 7. Work areas associated with construction of the conveyance pipeline carrying water from Intake 3 to the intermediate forebay would run north to south in the eastern section of the community. Additionally, construction and the long-term placement of Intake 3 and the intermediate forebay would substantially alter the lands surrounding Hood. While a permanent physical surface crossing of the community itself is not anticipated to result from these features, activities associated with their construction would create a linear construction area for a limited period of time, making it difficult to travel within Hood in certain areas. Additionally, the lasting placement of the intake facilities and intermediate forebay would represent physical structures that would substantially alter the setting of the community and its immediate surroundings, resulting in an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address this effect.

***CEQA Conclusion*:** During the construction of the conveyance pipeline between Intake 3 and the intermediate forebay, construction activities would cross the community of Hood, limiting access between some of the community's easternmost structures and the main section of the community. These divisions would result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 under Alternative 8 would be to the same as those described under Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under this alternative would be similar to those described under Alternative 1A because the proposed CM2–CM21 would be the same under both alternatives. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. This alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 8 would be to the same as those described under Alternative 1A. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, because, large-scale restoration actions that take place in areas suitable for open space, resource conservation, and habitat are not likely to create permanent physical divisions in existing communities, this impact is anticipated to be less than significant.

13.3.3.16 Alternative 9—Through Delta/Separate Corridors (15,000 cfs; Operational Scenario G)

Impact LU-1: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Alternative 9 would result in the construction of permanent and temporary features associated with the proposed water conveyance and fish movement corridors across land governed by the general plans of Sacramento, San Joaquin, Contra Costa, and Alameda Counties, along with the City of Lathrop. Constructing Alternative 9 would require land use activities that would be incompatible with many of the land use designations ascribed to the study area in the general plans of these counties. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

There would be no permanent adverse physical effects on or incompatibilities with land use as a result of the two culvert siphons that would be constructed under Alternative 9. Thus, permanent incompatibilities with existing land uses as they pertain to the proposed culvert siphons are not discussed further. Similarly, because operable barriers would be installed within existing water corridors, it is assumed they would not create incompatibilities with relevant land use plans or policies.

Table 13-16 displays the temporary and permanent structures associated with the water conveyance facility, the local land designations on which they would occur, and the number of acres that would be affected. Mapbook Figure M13-5 displays relevant generalized land use designations where they could overlap with proposed water conveyance structures and temporary work areas. For further description of the locations of various structures, please refer to Chapter 3, *Description of Alternatives*.

Table 13-16. Water Conveyance Incompatibilities with Land Use Designations under Alternative 9 (acres)

	Alameda County		Contra Costa County					Sacramento County						San Joaquin County					
Surface Feature	Agriculture	Commercial	Delta Recreation and Resources	Open Space	Parks and Recreation	Public and Semi-Public	Water	Agricultural Cropland	Intensive Industrial	Low Density Residential	Natural Preserve	Recreation	Commercial / Offices	City	Agriculture / General	Open Space / Other	Open Space / Resource Conservation	Residential / Low & Medium Density	Residential / Very Low Density
Canal	8	4	213	1	12	14	35								77	1	67	1	3
Channel Dredging																	484		
Channel Enlargement								14			28	6					1		
Fish Screen Area								5		14	1	70	1						
In-Stream Island Dredging																	89		
Operable Barrier			5				10	14	0	2	7	11		4	2		52		
Potential Borrow and/or Spoil			179		0	14		18			1	9		5	140		10		
Potential Spoil Area															1,582		87		
Transmission Line			2					12	3	1	0			0	22		1		
Subtotal Permanent	**8**	**4**	**399**	**1**	**12**	**28**	**45**	**63**	**3**	**17**	**37**	**96**	**1**	**9**	**1,823**	**1**	**791**	**1**	**3**
Access Road Work Area			7				0	4			14	5		2	1		57		
Barge Facility Work Area			12				15								10		29		
Bridge Work Area								1											
Canal Work Area			26			1									42		0		
Channel Enlargement Work Area								2			12								
Concrete Batch Plant			2					2							2				
Dredging Work Area															12		873		
Fuel Station			2					2							2				
Intake Work Area								11				18							
Levee Work Area	4	1													11	1	4	5	
Operable Barrier Work Area			37					14			5	10		10	96		37		
Pumping Plant Work Area														1	8		1		
Siphon Work Area			87												26		10		
Transmission Line			0					0							8		0		
Subtotal Temporary	**4**	**1**	**173**			**1**	**15**	**36**			**31**	**33**		**13**	**218**	**1**	**1,011**	**5**	
Grand Total	**12**	**5**	**572**	**1**	**12**	**29**	**60**	**99**	**3**	**17**	**68**	**129**	**1**	**22**	**2,041**	**2**	**1,802**	**6**	**3**

Notes: To avoid double counting, where temporary transmission lines overlap with a different temporary or permanent surface feature, these acreages are counted under the other feature. Where permanent transmission lines overlap with another temporary surface feature (i.e., work area), these acreages are counted under permanent transmission lines. Acreages are rounded; acreage less than 0.5 has been rounded to 0.

State and Regional Plan Policies

Under Alternative 9, construction activities associated with the features listed in Table 13-16 would take place on lands governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and in the Delta Stewardship Council Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. With regard to Policy ER P3, construction of water conveyance facilities could occur on priority habitat restoration areas identified in Delta Plan Figure 4-4. Impacts to the opportunity for habitat restoration must be "avoided or mitigated" under this policy. Specifically, a segment of canal and levee work area on the western boundary of Fabian Tract, and an operable barrier, along with related features including a work area, transmission lines, and an access road at the head of Old River could occur on the Lower San Joaquin River Floodplain Priority Habitat Restoration Area, which would exclude the potential for these lands to be restored. Similarly, areas identified for operable barriers and channel enlargement, along with associated work areas, transmission lines, and a borrow/spoil area west of Walnut Grove could be incompatible with the Cosumnes/Mokelumne Confluence Priority Habitat Restoration Area. While the potential for restoration of these lands would be affected, activities associated with BDCP Conservation Measures 3 through 11 would reduce these effects by restoring or permanently protecting other areas that could have been restored at the site(s) affected. As noted under Alternative 1A, Impact LU-4, priority habitat restoration areas substantially coincide with the restoration opportunity areas identified for tidal natural communities under BDCP CM4. Therefore, implementation of this BDCP alternative would be considered compatible with this policy. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM1 would be considered compatible with Policy DP-P2.

Alternative 9 may also result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Fish screens, operable barriers, and their related structures require contact with water and cannot feasibly be set back from levees. Incompatibilities could also occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1. These incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

Under Alternative 9, indirect effects on land use may also arise through incompatibilities with land subject to Williamson Act contracts or in Farmland Security Zones. If the construction and operation of water conveyance facilities under this alternative results in contract nonrenewal, cancellation, or

otherwise removes land within an agricultural preserve from a Williamson Act contract, the county overseeing the preserve may decide to manage the preserve differently; for instance, the county could modify the rules governing compatible uses on remaining land within the preserve. However, this effect is speculative and its magnitude or geographical incidence cannot be evaluated with enough certainty. Chapter 14, *Agricultural Resources,* discusses the potential for direct conflicts with land subject to Williamson Act contracts or in Farmland Security Zones.

Sacramento County

Permanent surface features associated with that portion of the water conveyance facility that would fall in Sacramento County include channel enlargement areas, fish screen areas, operable barriers, borrow and/or spoil areas, and 12 kV and 480 V transmission lines and towers. These features would result in the permanent conversion of land designated under the Sacramento County General Plan as Agricultural Cropland, Agricultural Cropland with a combined Resource Conservation overlay, Natural Preserve, Recreation, Low Density Residential, Commercial/Offices, and Industrial Intensive. These incompatibilities are summarized by Table 13-16. Construction of permanent water conveyance facility components on land designated as Agricultural Cropland would directly result in permanent land use changes that would preclude agricultural land uses in this area in the future and would result in a reduction of land available for agricultural use (discussed further in Chapter 14, *Agricultural Resources*). The conversion of agricultural land would be incompatible with the general plan, including Policy AG-5 regarding the conversion of farmland. However, public water supply and treatment facilities are exempt from local land use policies.

Temporary project features in Sacramento County associated with the construction of the water conveyance facility would include work and staging areas, access roads, a concrete batch plant, a fuel station, and transmission lines. These features would occupy land designated as Agricultural Cropland, combined Agricultural Cropland and Resource Conservation, Recreation, and Natural Preserve. These features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated as Agricultural Cropland would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. Construction of these temporary project features on agricultural land would be incompatible with the general plan, including Policy AG-5.

San Joaquin County

Alternative 9 would result in the permanent conversion of land designated under the San Joaquin County General Plan as Agriculture/General, Open Space/Resource Conservation, Open Space/Other, Residential/Low & Medium Density, and Very Low Density Residential primarily due to the construction of new or enlarged water channels, operable barriers, a pumping plant, a canal segment, an on-channel levee, and associated borrow and/or spoil areas and transmission lines. Additionally, an operable barrier, pumping plant, borrow and/or spoil area, and transmission lines would be incompatible with land designated by the City of Lathrop as Recreation Residential. These incompatibilities are summarized by Table 13-16. Conversion of agricultural lands and project conflicts with the Agriculture land use are described in Chapter 14, *Agricultural Resources.* The conversion of agricultural lands would be incompatible with the general plan, including Agricultural Lands Policy 5. The placement of these features on or adjacent to lands designated as Open Space/Resource Conservation would be incompatible with this land use designation and related

policies, including Open Space Policies 3 and 4 because it would diminish the amount of land dedicated to open space and conservation of natural habitat and resources.

Temporary project features in San Joaquin County associated with the construction of the water conveyance structures would include work and staging areas, access roads, dredging work areas, a concrete batch plant, a fuel station, a barge facility work area, and transmission lines. These features would occupy land designated as Agriculture/General, Open Space/Other, Open Space/Resource Conservation land, and Residential/Low & Medium Density. Access roads and work areas may also be incompatible with land designated by the City of Lathrop as Recreation Residential and Public (Schools, Parks, and Open Space). These incompatibilities are summarized by Table 13-16. As previously noted, many of these temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the nine-year project construction period). During that period, lands designated as Agriculture would be temporarily converted to non-agricultural use, as described in Chapter 14, *Agricultural Resources*. The conversion of agricultural lands would be incompatible with the general plan, including Agricultural Lands Policy 5.

Contra Costa County

Under Alternative 9, permanent project water conveyance features in Contra Costa County would include two canal segments and associated structures, borrow and/or spoil areas, operable barriers, and 12 kV and 480 V transmission lines with associated towers. These features would be constructed on lands designated as Delta Recreation and Resources, Public/Semi-Public, Parks and Recreation, and Open Space, as designated under the Contra Costa County General Plan. These incompatibilities are summarized by Table 13-16.

Constructing features on lands within the Delta Recreation and Resources designation would be incompatible with the goals of the Contra Costa County General Plan related to this land use designation, which focus on the preservation of land for recreation over the placement of new infrastructure. Construction would be incompatible with general plan Goal 3-G, which discourages development not related to agriculture, mineral extraction, wind energy or other appropriate rural uses on vacant rural lands.

A narrow area of land running through a proposed new canal segment is designated Public/Semi-Public. The Public/Semi-Public designation includes properties owned by public governmental agencies such as libraries, fire stations, and schools. This designation is also applied to public transportation corridors, as well as privately owned transportation and utility corridors. The Public/Semi-Public designation applies to properties owned by public agencies and privately-owned transportation and utility corridors. Because this designation exists for large-scale infrastructure and utilities, these project features would be compatible with this designation. However, construction of 12 kV and 480 V transmission lines with associated towers could be compatible with Policy 9-20, which requires that new power lines be located parallel to existing lines in order to minimize visual impact.

Temporary project features in Contra Costa County associated with the construction of the water supply and fish movement corridors would consist of work and staging areas, areas access roads, dredging work areas, a concrete batch plant, a fuel station, a barge facility work area, and transmission lines. These features would occupy land designated Delta Recreation and Resources and land designated Public/Semi-Public. These temporary features would likely be in place for the first nine or more years of project implementation (i.e., during the near-term implementation or the

nine-year project construction period). Temporary land use incompatibilities would be of the same nature as the permanent incompatibilities described above; however, they would occur over a shorter period of time.

Alameda County

Under Alternative 9, the permanent, project features proposed for Alameda County include a segment of canal and associated features. These features would be constructed on land designated under the Alameda County East County Area Plan as Large Parcel Agriculture and Commercial. Temporary features would consist of a levee work area, occurring over land dedicated to Large Parcel Agriculture and Commercial. These incompatibilities are summarized by Table 13-16. Permanent and temporary effects related to conversion of agricultural land are discussed in Chapter 14, *Agricultural Resources*. Construction of temporary features on agricultural land would be incompatible with ECAP policies, including Policy 71, which seeks to conserve farmland soils.

***CEQA Conclusion*:** These incompatibilities indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Construction of the water conveyance facility under this alternative, particularly the intake structures and new segment of canal extending south from Clifton Court Forebay, would require the disruption of approximately 255 structures throughout the alignment, including an estimated 74 residential buildings. Construction of the intakes and canal, as well as channel dredging activities, would also conflict with private recreational structures. Table 13-4 summarizes the estimated number of structures affected across structure type and alternative and Mapbook Figure M13-5 shows the distribution of these effects across the Through Delta/Separate Corridors conveyance alignment. Installation of fish screens and construction of associated structures on the Delta Cross Channel and Georgiana Slough would disrupt 90 structures near Walnut Grove and Locke. Approximately 75 of the structures affected under this alternative would be disrupted by activities associated with the canal and channel realignment on and near Hammer Island south of Clifton Court Forebay. Another 65 structures would be affected by dredging activities, particularly near Middle River south of Mildred Island and north of State Route 4. Other features—including operable barriers and associated work areas, borrow and spoil areas, channel enlargement areas, and access road work areas—would also create disruptions to existing structures.

These activities would create an adverse socioeconomic effect with respect to existing land uses under NEPA. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential adverse effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential adverse effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** This alternative would remove a substantial number of structures throughout the alternative footprint, but particularly on and near Hammer Island. This would be necessary for the modification of channels and the construction of new levees south of Clifton Court Forebay. Similar to other alternatives, the removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Project conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials*; and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternative 9, the construction of permanent facilities and associated work areas would be located in close proximity of the communities of Walnut Grove and Locke, displacing numerous structures in the communities and creating construction zones that would cross portions of the communities. Considered together, construction activities for the intake facilities would occur across seven years, substantially altering lands surrounding portions of the communities on the east side of the Sacramento River. Associated operable barriers and spoils areas would also be active worksites to the north and south of these communities, creating further structures adjacent to the surrounding areas. In the long-term, the intake facilities would represent a physical structures that would substantially alter the setting these communities and activities associated with their construction would cross the communities over a multiyear period, representing an adverse effect. Mitigation Measures TRANS-1a and TRANS-1b are available to address these effects.

***CEQA Conclusion*:** Construction of intake facilities would create construction zones crossing Walnut Grove and Locke on the east bank of the Sacramento River. Construction zones associated with these and other project features including operable barriers would substantially alter these communities and outlying areas. These physical structures would result in a significant and unavoidable impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-4: Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to incompatibility with applicable land use designations, goals, and policies resulting from implementation of BDCP Conservation Measures 2–21 under Alternative 9 would be similar to those described under Alternative 1A. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities or implementation of other conservation measures based on the location and nature of the physical water conveyance features associated with each alternative. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about the compatibility of this alternative with local land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. However, implementation of this alternative may result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions. As discussed in Section 13.3.2, to the extent that BDCP alternatives are incompatible with such land use designations, goals, and policies, any related environmental effects are discussed in other chapters.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about the compatibility of this alternative with local land use regulations cannot be made; these issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. Although implementation of this alternative would be anticipated to result in substantial incompatibilities with local land use regulations due to the amount of land area targeted for restoration actions, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-5: Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to conflicts with existing land uses under Alternative 9 would be similar to those described under Alternative 1A. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities or implementation of other conservation measures based on the location and nature of the physical water conveyance features associated with each alternative. As with Alternative 1A, implementation of CM2–CM21 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of the alternative, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself. This alternative

would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions.

***CEQA Conclusion*:** Because the locations and types of restoration to be implemented are unknown at this point, no definitive conclusion can be made about the potential for restoration actions to result in the permanent conversion of land uses (including displacement of existing structures and residences) due to the construction of permanent features of the facility. Nor can a conclusion be made with regard to the degree of indirect impacts, which could occur primarily as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, implementation of this alternative would be anticipated to result in substantial conflicts with current land uses due to the amount of land area targeted for restoration actions. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the alternative. This would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-6: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Effects related to the physical division of an existing community under Alternative 9 would be similar to those described under Alternative 1A. Potential variation from Alternative 1A would be anticipated to be minor but could result from the selection of different areas for restoration activities or implementation of other conservation measures based on the location and nature of the physical water conveyance features associated with each alternative. Because the locations for the implementation of these conservation measures are unknown at this time, a conclusion about this alternative's potential to divide an existing community cannot be made. Effects related to dividing an existing community as a result of the implementation of CM2–CM21 would not be anticipated to be adverse under this alternative.

***CEQA Conclusion*:** Because the locations for the implementation of CM2–CM21 are unknown at this point, a conclusion about this alternative's potential to divide an existing community cannot be made; however, implementation of Conservation Measures 2–21 would not be anticipated to result in significant impacts within the study area.

13.3.4 Cumulative Analysis

This cumulative impact analysis considers projects that could affect the same resources and, where relevant, in the same time frame as the alternatives, resulting in a cumulative impact. Land use and local communities are expected to change as a result of past, present, and reasonably foreseeable future projects, related to population growth and changes in economic activity in the study area (for discussion of effects in water delivery regions, see Chapter 30, *Growth Inducement and Other Indirect Effects*). It is expected that some changes related to land use including compatibility, communities and neighborhoods, property, and environmental justice will take place, even though it is assumed that reasonably foreseeable future projects would include typical design and construction practices to avoid or minimize potential impacts.

When the effects of the alternatives on land use are considered in combination with the potential effects of other initiatives including those listed in Table 13-17, the cumulative effects on land use are potentially adverse. The specific programs, projects, and policies are identified below for each impact category based on the potential to contribute to an impact that could be deemed

cumulatively considerable. The potential for cumulative impacts on land use is described for effects related to the construction of water conveyance facilities and effects stemming from the long-term implementation of CM2–CM21.

Table 13-17. Effects on Land Use from a Selection of Plans, Policies, and Programs Considered for Cumulative Analysis

Agency	Program/ Project	Status	Description of Program/Project	Effects on Land Use
Department of Water Resources	North Delta Flood Control and Ecosystem Restoration Project	Final EIR complete	Project implements flood control and ecosystem restoration benefits in the north Delta	Project includes changes to land uses from restoration of floodplain areas
Freeport Regional Water Authority and Bureau of Reclamation	Freeport Regional Water Project	Project was completed late 2010	Project includes an intake/pumping plant near Freeport on the Sacramento River and a conveyance structure to transport water through Sacramento County to the Folsom South Canal	Project resulted in permanent conversion of approximately 50–70 acres of farmland to nonagricultural uses. Approximately 35–45 acres of farmland and 415 acres of land subject to Williamson Act contracts were temporarily affected.
Reclamation District 2093	Liberty Island Conservation Bank		This project includes the restoration of inaccessible, flood prone land, zoned as agriculture but not actively farmed, to area enhancement of wildlife resources	Although this will result in a modification in zoning, the project will not convert active farmland to nonagricultural uses
Bureau of Reclamation	Delta-Mendota Canal/California Aqueduct Intertie	Completed in 2012	The purpose of the intertie is to better coordinate water delivery operations between the California Aqueduct (state) and the Delta-Mendota Canal (federal) and to provide better pumping capacity for the Jones Pumping Plant. New project facilities include a pipeline and pumping plant	Under the preferred alternative, approximately 2 acres of grazing land has been permanently converted to developed land

Projects considered for this cumulative effects section include those in the following list; each project is then described and its relationship to the resource impacts caused by the alternatives is discussed. For a complete list of such projects, consult Appendix 3D, *Defining Existing Conditions, No Action Alternative, No Project Alternative, and Cumulative Impact Conditions*.

The projects evaluated for cumulative impacts includes a number of projects that would create land use changes and specifically convert agricultural lands to nonagricultural uses. The BDCP alternatives, in conjunction with other projects that affect land use, would not be compatible with

state, regional, and local plan designations, goals, and policies that promote the retention and protection of open space and agricultural land as described in this chapter. Overall, cumulative land use changes would involve temporary and permanent changes in land use. Land use conversions could also occur through the urban development of Delta islands, levee improvement and flood control projects, or subsidence-reduction programs. The actual amount of land that may be converted by other projects is not known. Considering two major projects in the vicinity of the BDCP alternatives, Mountain House and River Islands development, an estimated 7,241 acres of agricultural land would be converted to developed uses.

No Action Alternative

The No Action Alternative in the cumulative condition would result in some change in study area land use and local communities as a result of localized population growth and conversion of agricultural land uses. In recent years California has lost agricultural land at a rate of about 50,000 acres annually. This loss is due in part to urban development fueled by a number of factors including population growth (University of California Agricultural Issues Center 2009) as well as drainage problems, loss of a reliable or affordable water supply, and conversion to wildlife habitat. These circumstances suggest that existing Delta land use patterns and agricultural uses may experience change related to continued development pressure in areas outside the primary zone. Other factors that may affect agricultural and rural land use conditions in the study area over the long term include continued land subsidence on Delta islands, levee instability and potential flood risk, and sea level rise effects on land uses near existing waterways. These potential effects are discussed further in Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies*.

Foreseeable land use changes in the study area could be incompatible with applicable land use designations, goals, and policies. Habitat restoration or development projects would take place on land governed by policies designed to avoid or mitigate environmental effects, as identified in the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council Proposed Final Delta Plan. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Depending on location and other characteristics, habitat restoration and urban development projects may result in incompatibilities with these policies and with local land use plans.

Such changes to land use would also be expected to conflict with existing land uses. Habitat restoration or urban development would directly affect land uses within the study area by both temporarily converting existing land uses during construction and permanently converting existing land uses. Indirect impacts would primarily happen as a result of incompatibility with adjacent land uses or the loss or increased difficultly of access to parcels. However, due to land use restrictions in the Primary Zone of the Delta, activities creating conflicts with existing land uses would likely be limited to a small percentage of the total land area within the study area.

Cumulative land use changes under the No Action Alternative would not be anticipated to result in the physical division of any existing communities within the study area.

Overall, the effects of plans, policies, programs, and other reasonably foreseeable circumstances included as part of the No Action Alternative would not be anticipated to result in substantial cumulative adverse effects on land use within the study area.

Land uses within the study area are primarily agricultural in nature. The potential for major seismic events, along with the potential effects of climate change, could affect ongoing agricultural uses if they resulted in the failure of levees or in climatic conditions less favorable for productive agricultural uses. Such events could also result in the physical division of existing Delta communities and effects on individual homes and businesses. (See Chapter 29, *Climate Change,* and Appendix 3E, *Potential Seismic and Climate Change Risks to SWP/CVP Water Supplies* for more detailed discussion of seismic and climate change risks). While similar risks would occur under implementation of the action alternatives, some of these risks may be reduced by BDCP-related levee improvements along with flood control programs and projects that would be implemented as part of the cumulative condition.

Impact LU-7: Cumulative Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Each alternative would place temporary and permanent structures on lands designated for other uses by the general plans of study area counties and, in some cases, cities. The construction of the water conveyance facilities would create incompatibilities with numerous land use designations, goals and policies set forth by these general plans. Construction of these facilities would also take place on areas governed by state and regional plans. The Delta Plan policies most closely associated with land use are ER P2 (Restore Habitats at Appropriate Elevations), ER P3 (Protect Opportunities to Restore Habitat), DP P1 (Locate New Urban Development Wisely), and DP P2 (Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats). Because CM1 under Alternatives 1A through 9 would not involve habitat restoration nor residential, commercial, or industrial development, ER P2 and DP P1 would not be applicable. With regard to Policy ER P3, construction of water conveyance facilities could occur on priority habitat restoration areas identified in Delta Plan Figure 4-4. Impacts to the opportunity for habitat restoration must be "avoided or mitigated" under this policy. As discussed above, Alternatives 1A, 1C, 2A, 2C, 3, 4, 5, 6A, 6C, 7, and 8 would avoid constructing water conveyance features on these areas. However, under Alternatives 1B, 2B, 6B, and 9, several features could be incompatible with one or more of the priority habitat restoration areas. While the potential for restoration of these lands would be affected, activities associated with BDCP Conservation Measures 3 through 11 would reduce these effects by restoring or permanently protecting other areas that could have been restored at the site(s) affected. As noted under Alternative 1A, Impact LU-4, priority habitat restoration areas substantially coincide with the restoration opportunity areas identified for tidal natural communities under BDCP CM4. Therefore, implementation of this BDCP alternative would be considered compatible with this policy. Policy DP P2 requires that parties responsible for proposed actions avoid or reduce incompatibilities with existing or planned uses when feasible. In some cases, commitments and mitigation measures identified in this document (see, for example, Chapter 14, *Agricultural Resources,* Mitigation Measure AG-1: Develop an ALSP to preserve agricultural productivity and mitigate for loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones) will help meet this requirement. However, avoidance of all incompatibilities is likely to be considered infeasible; thus, activities associated with CM1 under Alternatives 1A through 9 would be considered compatible with Policy DP P2.

Alternatives 1A–9 may also result in incompatibilities with LURMP policies related to land use. Many of these policies focus on local government activities; however, Land Use P-7 declares that new structures should be set back from levees. Intakes, fish screens, operable barriers, and their related structures require contact with water and cannot feasibly be set back from levees. Incompatibilities

could also occur with other LURMP policies, including Agriculture P-2, which suggests that agricultural land conversion should occur first where productivity and values are lowest. As discussed in Chapter 14, *Agricultural Resources*, some higher-value agricultural land would be converted under construction and operation of CM1 for each action alternative. Other projects that would potentially create incompatibilities are listed in Table 13-17.

Implementing these projects in combination with Alternatives 1A–9 would result in the potential for additional incompatibilities with designations, goals, and policies intended to reduce environmental effects. For example, construction of projects related to water supply, infrastructure, and habitat restoration would require temporary staging areas, resulting in land use changes throughout the study area. Permanent footprints of these projects would, in some cases, require direct changes in land use. Some of these changes could be incompatible with existing policies, particularly those regarding protection of agricultural resources. New plans or updates to existing plans could indirectly affect land use by creating new regulations by which land uses in the study area are governed. Incompatibilities suggest the potential for a physical effect on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

***CEQA Conclusion*:** These cumulative incompatibilities with land use regulations indicate the potential for a physical consequence to the environment. As discussed in Section 13.3.2, the cumulative physical effects they suggest are discussed in other chapters throughout this document. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1.

Impact LU-8: Cumulative Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

NEPA Effects: Under Alternatives 1A–9, construction and operation of physical facilities for water conveyance would create temporary or permanent conflicts with existing land uses. These effects result from the removal or relocation of existing structures, as summarized in Table 13-4, and from the disruption of critical access routes.

Table 13-17 includes other projects and programs in the study area that could create similar conflicts with existing land uses. Implementing these projects in combination with Alternatives 1A–9 could result in the removal of additional structures or disruption of access in more locations. For example, construction of projects related to water supply, infrastructure, and habitat restoration would require temporary staging areas, resulting in the potential for temporary disruption of access. The permanent footprints of these projects could require existing structures to be demolished and removed, creating substantial conflicts with existing land uses. New plans or updates to existing plans would not be anticipated to result in adverse effects with respect to existing land uses because these tend to focus on general goals, objectives, and policies designed to guide land use.

The removal of a cumulatively considerable number of existing permanent structures would be considered a direct, adverse socioeconomic effect under NEPA. To reduce these cumulative effects, when required, the BDCP proponents would provide compensation to property owners for losses due to BDCP implementation, which would reduce the severity of economic effects related to these cumulative impacts, but would not reduce the severity of the physical impacts themselves. Cumulative conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential cumulative effects on the environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards*

and Hazardous Materials; and potential cumulative effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of cumulative projects within the study area could result in the removal of a substantial number of existing permanent structures based on the locations of new features such as water facilities or restored habitat. The removal of existing structures is not, in itself, considered an environmental impact, though removal might entail economic impacts. Significant cumulative environmental impacts would only result if the structures qualified as "historical resources" or the removal of structures led to physical effects on certain other resources. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS. Cumulative conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential cumulative impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on "historical resources" (including qualifying structures) and traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. Where applicable, BDCP proponents will provide compensation to property owners for losses due to BDCP implementation. This compensation would reduce the severity of economic effects, but would not constitute mitigation for any related physical impact. In sum, there are no land use effects under CEQA due solely to the removal of physical structures that are not treated under other impact categories.

Impact LU-9: Cumulative Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility (CM1)

Alternatives 3 and 5

NEPA Effects: The construction of structures related to water conveyance would not establish physical structures adjacent to and through a portion of any existing community under BDCP Alternatives 3 and 5. While construction activities for intakes and the intermediate forebay would occur in the relative proximity of the community of Hood, the community would not be crossed by these alternatives or by any other plan, policy, or program considered for cumulative analysis. Therefore, this effect is not considered adverse.

***CEQA Conclusion*:** No structure built for the purposes of water conveyance would be located adjacent to or through a portion of an existing community under BDCP Alternatives 3 and 5. Similarly, other plans, policies, and programs considered for cumulative analysis are not anticipated to create such an effect. Therefore, this impact is not significant.

Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 4, 6A, 6B, 6C, 7, 8, and 9

NEPA Effects: Under these alternatives, at least one feature would be located in and around a community, resulting in an adverse effect. For those alternatives constructing Intake 3 or 4 on the east bank of the Sacramento River, a conveyance pipeline or canal would create a linear construction zone between structures in the community of Hood, except for Alternative 4, which would instead convey water from Intake 3 to the intermediate forebay via a tunnel. However, this alternative would include a permanent power line through the eastern section of the community, which would provide power to the intake pumping plants. Additionally, a temporary work area associated with construction of the conveyance facilities would be built adjacent to Hood on the southern side of the community, and would serve as a staging area during the construction phase. It would consist of facilities such as parking areas, offices, and construction equipment storage. For alternatives

constructing a conveyance pipeline between Intakes 1 and 2 on the west bank of the Sacramento River, the lands surrounding the community of Clarksburg would be altered during the construction period for this feature. Fish screens constructed under Alternative 9 would create physical structures adjacent to the communities of Walnut Grove and Locke. The construction of these facilities would create an adverse effect with respect to establishing structures adjacent to or through a portion of an existing community. Mitigation Measures TRANS-1a and TRANS-1b are available to help address these effects.

***CEQA Conclusion*:** Construction of facilities under Alternatives 1A, 1B, 1C, 2A, 2B, 2C, 4, 6A, 6B, 6C, 7, 8, and 9 would create physical structures adjacent to and through a portion of one of several communities in the study area. Linear construction zones would also be associated with these features, which include intakes, pipelines, canals, bridges, and/or fish screens. These divisions would result in a cumulatively considerable incremental contribution to a significant and unavoidable cumulative impact. Implementation of Mitigation Measures TRANS-1a and TRANS-1b would help reduce the severity of this impact by supporting continued access to and from the community on transportation routes; however, permanent structures would remain, and the impact would be significant.

Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan

Please refer to Mitigation Measure TRANS-1a in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments

Please refer to Mitigation Measure TRANS-1b in Chapter 19, *Transportation*, under Alternative 1A, Impact TRANS-1.

Impact LU-10: Cumulative Incompatibility with Applicable Land Use Designations, Goals, and Policies as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Under Alternatives 1A–9, implementation of CM2–CM21 could result in incompatibility with applicable land use designations, goals, and policies in the study area. For any conservation measure requiring construction activities (e.g., establishment of storage, staging and stockpiling areas; grading; levee removal/replacement), temporary incompatibilities with land use designations or policies intended to avoid or mitigate environmental impacts across the study area counties or cities could potentially occur for the duration of those activities. Because the locations for the implementation of these conservation measures are unknown at this point, a definitive conclusion about the compatibility of these measures with applicable land use regulations cannot be made. These issues would be addressed in detail in site-specific environmental documents for restoration proposals. Because most activities would be anticipated to take place on land designated for agriculture, open space, natural preserve and recreation, local designations, goals, and policies related to preservation of those attributes would be most implicated.

As discussed under Impact LU-7, above, implementation of projects listed in Table 13-17 in combination with CM2–CM21 discussed under Alternatives 1A–9 could result in the potential for additional incompatibilities with designations, goals, and policies intended to reduce environmental effects. For example, construction of projects related to water supply, infrastructure, and habitat

restoration would require temporary staging areas, resulting in land use changes throughout the study area. Permanent footprints of these projects would, in some cases, require direct changes in land use. Some of these changes could be incompatible with existing policies, particularly those regarding protection of agricultural resources. New plans or updates to existing plans could indirectly affect land use by creating new regulations by which land uses in the study area are governed. Incompatibilities suggest the potential for cumulative physical effects on the environment. As discussed in Section 13.3.2, such effects are discussed in other chapters throughout this EIR/EIS.

***CEQA Conclusion*:** Considered together, the construction of projects within the study area in addition to implementation of BDCP Conservation Measures 2–21 under Alternatives 1A–9 could result in the potential for substantial incompatibilities with land use designations, goals, and policies. However, because the locations for the implementation of these conservation measures are unknown at this point, a definitive conclusion about these measures' incremental contributions to cumulative incompatibilities with applicable land use guidelines cannot be made. These issues therefore will have to be addressed in detail in site-specific environmental documents proposals related to these measures. Although cumulative implementation of these conservation measures along with other projects would be anticipated to result in substantial incompatibilities with land use regulations due to the amount of land area affected, it is presently unknown whether any such incompatibilities would be indicative of related physical consequences, such as the loss of prime agricultural land or unique archaeological resources. The relationship between plans, policies, and regulations and impacts on the physical environment is discussed in Section 13.3.1. These issues will also be addressed in the site-specific environmental documents for proposed restoration activities.

Impact LU-11: Cumulative Conflicts with Existing Land Uses as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Implementation of CM2–CM21 under Alternatives 1A–9 could create temporary or permanent conflicts with existing land uses where they would require the removal of structures or sever critical access routes.

As described under Impact LU-8, Table 13-17 includes other projects and programs in the study area that could create similar conflicts with existing land uses. Implementing these projects in combination with Alternatives 1A–9 could result in the removal of additional structures or disruption of access in more locations. For example, construction of projects related to water supply, infrastructure, and habitat restoration would require temporary staging areas, resulting in the potential for temporary disruption of access. The permanent footprints of these projects could require existing structures to be demolished and removed, creating substantial conflicts with existing land uses. New plans or updates to existing plans would not be anticipated to result in adverse effects with respect to existing land uses because these tend to focus on general goals, objectives, and policies designed to guide land use.

The removal of a cumulatively considerable number of existing permanent structures as a result of constructing the water conveyance facility would be considered a direct, adverse effect. Where applicable, the BDCP proponents will provide compensation to property owners for losses due to implementation of the BDCP measures, which would reduce the severity of economic effects related to these cumulative impacts, but would not reduce the severity of the physical impacts themselves. Cumulative conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential cumulative effects on the environment related to the potential release of

hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential cumulative effects on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*.

***CEQA Conclusion*:** Construction of cumulative projects within the Plan Area could result in the removal of a substantial number of existing permanent structures based on the locations of new features such as water facilities or restored habitat. However, because the locations for the implementation of CM2–CM21 are unknown at this point, a definitive conclusion about these measures' incremental contributions to cumulative conflicts with existing land uses cannot be made. These issues therefore will have to be addressed in detail in site-specific environmental documents for restoration proposals. In addition, the removal of existing structures is not, in itself, considered an environmental impact. Cumulative conflicts with existing public structures are addressed in Chapter 20, *Public Services and Utilities*; potential cumulative impacts on the public and environment related to the potential release of hazardous materials contained in structures to be demolished are addressed in Chapter 24, *Hazards and Hazardous Materials;* and potential impacts on traditional cultural properties are addressed in Chapter 18, *Cultural Resources*. When required, the BDCP proponents would provide compensation to property owners for losses due to implementation of CM2–CM21, which would reduce the severity of economic effects related to this physical impact, but would not reduce the severity of the physical impact itself.

Impact LU-12: Cumulative Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Implementing the Proposed Conservation Measures 2–21

NEPA Effects: Because the locations for the implementation of CM2–CM21 under Alternatives 1A–9 are unknown at this time, a definitive conclusion about their potential to divide an existing community cannot be made. These conservation measures are anticipated to take place largely on undeveloped lands that lie outside of existing communities. Those conservation measures that would take place inside existing communities (for instance, CM14, CM18, and CM19) would be anticipated to be limited in their physical scope and would not be linear in nature.

***CEQA Conclusion*:** Implementation of CM2–CM21 would not be anticipated to physically divide an existing community under BDCP Alternatives 1A–9. However, without the locations where these components would be implemented, a definitive conclusion cannot be made.

13.4 References Cited

13.4.1 Printed References

Alameda County. 2000. *East County Area Plan*. Oakland, CA. Adopted May 1994. Modified by passage of Measure D, effective December 22, 2000. Oakland, CA. Available: <http://www.acgov.org/cda/planning/generalplans/>. Accessed: January 12, 2012.

Alta Planning + Design. 2010. *The Great California Delta Trail Blueprint Report for Contra Costa and Solano Counties*. September. Benicia, CA. Prepared for Delta Protection Commission. Walnut Grove, CA.

California Department of Fish and Game. 2007. *Lower Sherman Island Wildlife Area Land Management Plan*. Sacramento, CA. Available: <http://www.dfg.ca.gov/lands/mgmtplans/lsiwa/>. Accessed: May 11, 2010.

———. 2008. *Yolo Bypass Wildlife Area Land Management Plan*. Sacramento, CA. Available: <http://www.dfg.ca.gov/lands/mgmtplans/ybwa/>. Accessed: May 11, 2010.

California Department of Parks and Recreation. 1987. *General Plan for Brannan Island and Franks Tract State Recreation Areas*. Sacramento, CA. With technical assistance from Center for Design Research, University of California, Davis, and EDAW, Sacramento, CA.

California Department of Water Resources. 2013. *The Suisun Marsh*. Available: <http://www.water.ca.gov/suisun/>. Accessed: June 26, 2013.

California State Parks. 2011. *Recreation Proposal for the Sacramento–San Joaquin Delta and Suisun Marsh*. Sacramento, CA: Planning Division.

City of Antioch. 2003*. City of Antioch General Plan*. November 24. Antioch, CA.

City of Benicia 1999. *Benicia General Plan*. Adopted June 15. Available: <http://greengatewaygroup.org/resources/Benicia%20General%20Plan/I-Contents,Ch1,Ch2_%7B3328E313-6933-47AC-B8DF-B6D19564CE7F%7D.PDF>. Accessed: February 8, 2012.

City of Brentwood. 2011. *City of Brentwood General Plan 2001–2021.* Adopted June 1993, Revised June 2011. Brentwood, CA. Available: <http://www.brentwoodca.gov/pdf/new/comdev/general_plan.pdf>. Accessed: January 20, 2012.

City of Elk Grove. 2003. *The City of Elk Grove General Plan*. Includes Amendments through July 22, 2009. Elk Grove, CA.

City of Fairfield. 2002. *City of Fairfield General Plan: Open Space, Conservation, and Recreation Element and Agriculture Element*. June. Fairfield, CA. Available: <http://www.fairfield.ca.gov/gov/depts/cd/plan.asp>. Accessed: June 26, 2013.

———. 2004. *City of Fairfield General Plan: Health and Safety Element and Land Use Element.* February. Fairfield, CA. Available: <http://www.fairfield.ca.gov/gov/depts/cd/plan.asp>. Accessed: June 26, 2013.

City of Lathrop. 2004. *Comprehensive General Plan for the City of Lathrop.* Adopted December 17, 1991. Last amended November 9, 2004. State Clearinghouse No. 91022059. Lathrop, CA. Available: <http://www.ci.lathrop.ca.us/cdd/documents/pdf/03-02-2011_16-59-23-758_758.pdf>. Accessed: February 7, 2012.

City of Lodi. 2010. *Lodi General Plan*. April. Lodi, CA.

City of Manteca. 2003. *City of Manteca General Plan 2023*. October. Includes amendments through April 2011. Manteca, CA.

City of Oakley. 2010. *City of Oakley 2020 General Plan*. Adopted December 16, 2002. Amended January 26, 2010. Available: < http://www.ci.oakley.ca.us/UserFiles/file/GeneralPlan/General%20Plan%202020_Updated%20January%2026,%202010.pdf >. Accessed: June 17, 2013.

City of Pittsburg. 2004. *Pittsburg 2020: A Vision for the 21st Century. City of Pittsburg General Plan*. Last amended 2010. Pittsburg, CA. Available: <http://www.ci.pittsburg.ca.us/index.aspx?page=228>. Accessed: January 20, 2012.

City of Rio Vista. 2002. *City of Rio Vista General Plan 2001*. Adopted July 18, 2002. City Council Resolution No. 02-62. City of Rio Vista Community Development Department. Rio Vista, CA. With assistance from North Fork Associates, Auburn, CA, and David Evans Design, Oakland, CA.

City of Sacramento. 2009. *Sacramento 2030 General Plan*. Adopted March. Available: <http://www.sacgp.org/>. Accessed: December 14, 2011.

City of Stockton. 2007. *Stockton General Plan 2035 Goals and Policies Report*. December. Stockton, CA. Prepared by Mintier and Associates and Matrix Design Group.

———. 2011. *2035 General Plan Land Use/Circulation Diagram*. Last updated June 21, 2011. Available: <http://www.stocktongov.com/government/departments/communityDevelop/cdPlanGen.html>. Accessed: June 26, 2013.

City of Suisun City. 1992. *City of Suisun City General Plan Volume 1*. May. Suisun City, CA.

City of Tracy. 2011. *City of Tracy General Plan*. February. Available: <http://www.ci.tracy.ca.us/?navid=562>. Accessed: December 13, 2011.

City of West Sacramento. 2004. *City of West Sacramento General Plan*. Revised and adopted December 8. West Sacramento, CA.

Coffman Associates. 2009. *San Joaquin County's Aviation System Airport Land Use Compatibility Plan*. July. Phoenix, AZ.

Contra Costa County. 2005. *Contra Costa County General Plan 2005–2020*. Martinez, CA: Contra Costa County Community Development Department. Available: <http://www.co.contra-costa.ca.us/index.aspx?NID=382>. Accessed: June 26, 2013.

———. 2010. *Contra Costa County General Plan and Zoning*. Available: <http://www.co.contra-costa.ca.us/index.aspx?NID=382>. Accessed: November 8, 2011.

County of Yolo. 2009. *2030 Countywide General Plan*. Adopted November 10. Resolution no. 09-189. Woodland, CA. Available: <http://www.yolocounty.org/Index.aspx?page=1965>.

Delta Protection Commission. 2007. *Delta Protection Commission.* Available: <http://www.delta.ca.gov/commission.htm>. Accessed: June 26, 2013.

———. 2010. *Land Use and Resource Management Plan for the Primary Zone of the Delta*. Walnut Grove, CA. Available: <http://www.delta.ca.gov/>. Accessed: January 17, 2012.

Delta Stewardship Council. 2013. *Proposed Final Delta Plan*. Available: <http://deltacouncil.ca.gov/delta-plan/>. Accessed: June 21, 2013.

Jones & Stokes. 2001. *A Framework for the Future: Yolo Bypass Management Strategy*. (J&S 99079.) Sacramento, CA. Prepared for Yolo Basin Foundation. Davis, CA.

Sacramento Area Council of Governments. 1984. *Sacramento International Airport (Formerly Sacramento Metropolitan Airport) Comprehensive Land Use Plan*. October. Amended April 1985, December 1992, July 1993, January 1994. Sacramento, CA.

Sacramento Bee. 2010. *Yolo Halts Habitat Damage Projects.* November 10. Page B1.

Sacramento County. 2011. *Sacramento County General Plan of 2005–2030*. Amended and Adopted November 9. Sacramento, CA: Community Planning and Development Department. Available: <http://www.msa2.saccounty.net/planning/Pages/GeneralPlan.aspx>. Accessed: January 24, 2012.

San Francisco Bay Conservation and Development Commission. 1976. *Suisun Marsh Protection Plan*. Available: <http://www.bcdc.ca.gov/laws_plans/plans/suisun_marsh#3>. Accessed: May 11, 2010.

San Joaquin County. 1992. *San Joaquin County General Plan 2010: Volume I.* Stockton, CA. Available: <http://www.sjgov.org/commdev/cgi-bin/cdyn.exe?grp=planning&htm=generalplan>. Accessed: February 11, 12, and 13, 2009.

———. 2013. *San Joaquin County General Plan Update: Planning Commission Recommended Alternative*. Planning Commission. Stockton, CA.

Shutt Moen Associates. 2002. *Travis Air Force Base Land Use Compatibility Plan*. June 13. Santa Rosa, CA. In Association with Harris Miller Miller & Hanson, Inc., Sacramento, CA. Prepared for Solano County Airport Land Use Commission, Fairfield, CA.

Solano County. 2008. *Solano County General Plan*. Fairfield, CA. Available: <http://www.co.solano.ca.us/depts/rm/planning/general_plan.asp>. Accessed: February 11, 12, and 13, 2009; January 17, 2012.

Solano County Airport Land Use Commission. 1988. *Airport Land Use Compatibility Plan: Rio Vista Municipal Airport, New Rio Vista Airport*. May. Fairfield, CA.

Sutter County. 2010. *Sutter County General Plan.* Public Draft. September. Available: <http://www.co.sutter.ca.us/doc/government/depts/cs/ps/gp/gp_documents>. Accessed: June 26, 2012.

———. 2012. *Sutter County General Plan Update*. (Web page.) Available: <http://www.co.sutter.ca.us/doc/government/depts/cs/ps/gp/gp_home>. Accessed: June 26, 2013.

University of California Agricultural Issues Center. 2009. *The Measure of California Agriculture.* Available: <http://aic.ucdavis.edu/publications/moca/moca09/moca09.pdf >. Accessed: June 26, 2013.

U.S. Fish and Wildlife Service. 2007. *Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan*. Available: <http://www.fws.gov/refuge/Stone_Lakes/what_we_do/planning.html>. Accessed: May 11, 2010.